STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

RICK SNYDER
GOVERNOR

DAN WYANT
DIRECTOR

June 24, 2015

Ms. Mary Ann Harrington, Chairperson
Delta County Board of Commissioners
310 Ludington Street
Escanaba, Michigan 49829

Dear Ms. Harrington:

The locally approved amendment to the Delta County Solid Waste Management Plan (Plan Amendment) received by the Department of Environmental Quality (DEQ) on November 22, 2014, is hereby approved with modifications. The Plan Amendment required modifications that were sent to the Delta County Designated Planning Agency (DPA) contact, Mr. Peter Van Steen on April14, 2015. The approval of the modifications dated, May 6, 2014, was received from the DPA on behalf of Delta County.

Based upon the intent of the County, the following modifications were made to the Plan Amendment:

Page II-8, Facility Description, Escanaba Paper Company, the "Total area of facility property" identifies 2060 acres; however, based upon a review of the facility's restrictive covenant and confirmation from Mr. Todd Schmidt, Escanaba Paper Company, this amount should be 1960 acres. Therefore, the "Total area of facility property" shall be changed to 1960 acres. Additionally, the County intended to allow Escanaba Paper Company to expand throughout its entire property; however, the Amendment only identified 132.4 acres, under the "Total area sited for use." Therefore, the "Total area sited for use" acres shall be changed from 132.4 acres to 1960 acres. This change also applies to Page III-10 as well.

Page III-34, Siting Review Procedures, Siting Criteria and Process, first bulleted item does not identify the changes that were made in the Plan Amendment that was approved on, January 16, 2007. To alleviate any confusion, this item shall be changed to reflect those updates as follows:

> Expansions of the Delta Landfill facility located in Section 22, **Section 21, and the South half of Section 15,** Township 39 North, Range 23 West, Delta County, is permitted.

Page III-34, Siting Review Procedures, Siting Criteria and Process, second bulleted item states the following, "Expansions of and/or changes in disposal area types to include other non-Type II wastes at the Escanaba Paper Company landfill facility located...are permitted." The term "non-Type II wastes" is not defined and does not clearly identify the County's intent for this facility and should be changed to a definable waste type.

Also, based upon conversation between Mr. Peter Van Steen, County DPA and Ms. Christina Miller, DEQ, the County intended to allow the Escanaba Paper Company landfill to get a permit for a change or an additional waste disposal area type only for waste

types that were generated on the facility property, including waste generated from any business that is located on their facility property. The language identified above does not limit the facility as the County intended.

Further, the County intended to allow Escanaba Paper Company to expand throughout its entire property, which as noted in the second paragraph of this letter, is 1,960 acres.

Based upon the above areas of concern and to clearly identify the County's intent this sentence shall be changed to the following:

> "Expansions of and/or changes in disposal area types shall only include other industrial waste types and/or construction and demolition waste generated at the facility property, up to the 1960 acres identified on the facility description page under the "Total area sited for use", at the Escanaba Paper Company landfill facility located in Sections 25 and 36, Township 40 North, Range 23 West are permitted."

Further, the County requested to identify the current disposal rate amount found on page II-11 of the Plan Amendment, which should have been listed as $57 per ton at the Delta County Landfill and not $48 per ton. Therefore, the disposal rate amount shall be changed to $57 per ton per this request.

Upon approval by the DEQ, the Plan Amendment also makes the following changes:

- Updates the Data Base section with current and projected waste volumes
- Updates the facility description pages for the Escanaba Paper Company landfill and includes additional waste types if/when the facility is permitted as a construction & demolition (C&D) landfill.
- Updates the Solid Waste Collection and Transportation Infrastructure to reflect the current structure.
- Updates the Evaluation of Deficiencies and Problems in the existing solid waste system.
- Updates the Solid Waste Management Alternatives; specifically the information pertaining to the waste generated at the Escanaba Paper Company landfill.

The DEQ would like to thank Delta County for its efforts in addressing its solid waste management issues. If you have any questions, please contact Ms. Rhonda S. Oyer, Chief, Sustainable Materials Management Unit, Solid Waste Section, Office of Waste Management and Radiological Protection, at 517-284-6591; oyerr@michigan.gov; or DEQ, P.O. Box 30241, Lansing, Michigan 48909-7741.

Sincerely,

Bryce Feighner, P.E., Chief
Office of Waste Management and
Radiological Protection
517-284-6551

cc: Senator Tom Casperson
Representative Ed McBroom
Mr. Peter Van Steen, Central Upper Peninsula Planning & Development Commission
Mr. Dan Wyant, Director, DEQ
Mr. Jim Sygo, Deputy Director, DEQ
Ms. Maggie Pallone, Legislative Affairs, DEQ
Mr. Phil Roycraft/Ms. Carolyn St Cyr, DEQ
Ms. Rhonda S. Oyer, DEQ
Mr. Steve Sliver/Ms. Christina Miller, DEQ\Delta County File

CUPPAD
Central Upper Peninsula Planning And Development Regional Commission

2950 College Ave., Escanaba, MI 49829 • www.cuppad.org • cuppad@cuppad.org
Phone: 906-786-9234 • Fax: 906-786-4442 • 800-562-9828

May 6, 2015

Ms. Christina Miller
Solid Waste Section
Department of Environmental Quality
PO Box 30241
Lansing, MI 48909-7741

Dear Christina:

We received the letter dated April 14, 2015 regarding the recent amendment submitted by Delta County to amend its Solid Waste Plan. Your comments were shared with officials of Escanaba Paper Company who suggested some minor editorial changes.

At a recent meeting of the Delta County Board of Commissioners (May 5, 2015), the Commissioners reviewed your comments and concurred with your recommendations as presented with the slight editorial changes as suggested by Escanaba Paper Company.

The current disposal rate is $57.00 per ton at the Delta Landfill. One of the pages with the amended text refers to a disposal rate of $48.00 per ton. So not to cause any confusion with the pricing, it is suggested page II-11 be modified to refer to the current tipping fee.

Enclosed is a letter from County Board Chairman Mary Ann Harrington requesting the MDEQ to approve the Plan Amendments with the modifications noted.

Should you have any questions, feel free to contact me.

Sincerely,

Peter Van Steen

Peter Van Steen
Transportation Planner

Enclosure

cc: Delta County Solid Waste Planning Committee
Gary Daniels, Golder Associates
Ken Diehn, Escanaba Paper Company
Todd Schmidt, Escanaba Paper Company

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MAY 1 1 2015
DEPARTMENT OF ENVIRONMENTAL QUALITY

DELTA COUNTY BOARD OF COMMISSIONERS

ADMINISTRATION OFFICE
310 LUDINGTON STREET
ESCANABA, MICHIGAN 49829
PHONE: 906-789-5100
FAX: 906-789-5197

May 5, 2015

Ms. Christina Miller
Sustainable Materials Management Unit
Solid Waste Section
Office of Waste Management and Radiological Protection
Department of Environmental Quality
PO Box 30241
Lansing, MI 48909-7741

Dear Ms. Miller:

As a follow-up to your letter dated April 14, 2015 clarifying some approval issues and the intent of the Delta County Solid Waste Management Plan Amendment submitted November 19, 2014 to your office, the Delta County Board of Commissioners met in regular session on May 5, 2015 to review your comments. The Board of Commissioners concurred with your recommendations as follows, with some minor editorial changes as indicated:

- On page II-8, Facility Description, Escanaba Paper Company, the acreage for "Total area of facility property" should be changed from 2,060 acres to 1,960. The acreage for "Total area sited for use" should be changed from 132.4 acres to 1,960 acres.

- On page III-10, Facility Description, Escanaba Paper Company, the acreage for "Total area of facility property" should be changed from 2,060 acres to 1,960. The acreage for "Total area sited for use" should be changed from 132.4 acres to 1,960 acres.

- The County Board recognizes that while the facility is designed to accept any non-hazardous industrial waste generated at the industrial facility, the acceptance of asbestos waste for disposal requires the landfill operator to comply with the requirements of the federal asbestos regulations, found in 40 C.F.R. parts 61 to 62, July 1, 1997 edition. The County Board recognizes the facility will remain permitted as a "Type III- Industrial ~~Waste Facility~~ Landfill" as Type III- Low Hazard Industrial Waste or Construction & Demolition (C&D) Waste landfills cannot accept asbestos-containing waste material. The County Board recognizes that a C&D permit is not needed to accept C&D materials so long as it is generated at the facility.

- Page III-34, Siting Review Procedures, Siting and Process, first bulleted item will be revised to identify the change to the Plan as part of the Plan Amendment that was approved by the MDEQ

on January 16, 2007 to allow expansion of the Delta Landfill in Section 21 and the South half of Section 15. The revised bullet item will read as follows:

- "Expansion of the Delta Landfill facility located in Section 22, Section 21 and the South half of Section 15, Township 39 North, Range 23 West, Delta County, is permitted."

- Page III-34 Siting Review Procedures, Siting Criteria and Process, second bulleted item will be revised to clarify the term "non-Type II wastes", clarify the County intends to allow the Escanaba Paper Company to obtain a permit for a change or an additional waste disposal area type only for waste types that are generated on the Escanaba Paper Company facility property, including waste generated from any business that is located on the Escanaba Paper Company facility property, and to clarify that the total area sited for use is 1,960 acres as identified on the facility description page. The revised bulleted sentence will read as follows:

  - "Expansions of and/or changes in disposal area types shall only include other industrial waste types and/or construction and demolition waste generated ~~at~~ within the 1,960 acre facility property~~, up to 1,960 acres~~ identified on the facility description page under the "Total area sited for use", at the Escanaba Paper Company landfill facility located in Sections 25 and 36, Township 40 North, Range 23 West are permitted."

The Delta County Board of Commissioners requests the MDEQ to approve the Plan Amendment with these modifications.

In addition, it is noted the current disposal rate at the Delta Landfill is up to $57.00 per ton. We request the last sentence on page II-11 be modified to reflect the current tipping fee. The revised sentence should read:

- "The Delta County Landfill allows individuals to haul and dispose of waste at the current rate of $57.00 per ton. The minimum disposal fee is $10.00 for up to 350 pounds of waste."

Should you require additional information, please do not hesitate to contact Peter Van Steen at the CUPPAD Regional Commission, 906.786.9234.

Sincerely,

Mary K. Harrington

Mary Ann Harrington, Chairperson
Delta County Board of Commissioners

cc: Delta County Solid Waste Planning Committee
Gary Daniels, Golder Associates
Ken Diehn, Escanaba Paper Company
Todd Schmidt, Escanaba Paper Company

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

RICK SNYDER
GOVERNOR

DAN WYANT
DIRECTOR

April 14, 2015

Mr. Peter VanSteen
Central Upper Peninsula Planning and Development
2950 College Avenue
Escanaba, Michigan 49829

Dear Mr. VanSteen:

SUBJECT: 2013 Delta County Solid Waste Management Plan Amendment

This letter is a follow-up to our conversation on March 13, 2015, regarding clarifying some approval issues and the intent of the Delta County Solid Waste Management Plan Amendment (Amendment). In order for the Department of Environmental Quality (DEQ) to recommend approval and to acknowledge the intent of Delta County (County), the following modifications to the Amendment need to be made:

Page II-8, Facility Description, Escanaba Paper Company, the "Total area of facility property" identifies 2060 acres; however, based upon a review of the facility's restrictive covenant and confirmation from Mr. Todd Schmidt, Escanaba Paper Company, this amount should be 1960 acres. Therefore, the "Total area of facility property" should be changed to 1960 acres. Additionally, the County intended to allow Escanaba Paper Company to expand throughout its entire property; however, the Amendment only identified 132.4 acres, under the "Total area sited for use." Therefore, the "Total area sited for use" acres should be changed from 132.4 acres to 1960 acres. This change also applies to Page III-10 as well.

Please note that while the facility is designed to accept any non- hazardous industrial waste generated at the industrial facility, the acceptance of asbestos waste for disposal requires that the landfill operator comply with the requirements of the federal asbestos regulations, found in 40 C.F.R. parts 61 to 62, July 1, 1997 edition. Also, the facility must remain permitted as a "Type III –Industrial Waste facility" as Type III- Low-Hazard Industrial Waste or Construction & Demolition (C & D) Waste Landfills cannot accept asbestos-containing waste material. Further, it should be noted that a C&D permit is not needed to accept C&D materials so long as it is generated at the facility.

Page III-34, Siting Review Procedures, Siting Criteria and Process, first bulleted item does not identify the changes that were made in the Plan Amendment that was approved on; January 16, 2007. To alleviate any confusion, this item should be changed to reflect those updates as follows:

> Expansions of the Delta Landfill facility located in Section 22, **Section 21, and the South half of Section 15,** Township 39 North, Range 23 West, Delta County, is permitted.

Page III-34, Siting Review Procedures, Siting Criteria and Process, second bulleted item states the following, "Expansions of and/or changes in disposal area types to include other non-Type II wastes at the Escanaba Paper Company landfill facility located...are permitted." The term "non-Type II wastes" is not defined and does not clearly identify the County's intent for this facility and should be changed to a definable waste type.

Also, based upon our conversation, the County intended to allow the Escanaba Paper Company landfill to get a permit for a change or an additional waste disposal area type only for waste types that were generated on the facility property, including waste generated from any business that is located on their facility property. The language identified above does not limit the facility as the County intended.

Further, the County intended to allow Escanaba Paper Company to expand throughout its entire property, which as noted in the second paragraph of this letter is 1,960 acres.

Based upon the above areas of concern and to clearly identify the County's intent this sentence should be changed to the following:

> "Expansions of and/or changes in disposal area types shall only include other industrial waste types and/or construction and demolition waste generated at the facility property, up to the 1960 acres identified on the facility description page under the "Total area sited for use", at the Escanaba Paper Company landfill facility located in Sections 25 and 36, Township 40 North, Range 23 West are permitted."

If the County agrees with the DEQ administratively making these modifications to the Amendment as part of the DEQ's approval of the Amendment, please have a party who is authorized to act on behalf of the County provide a letter to the DEQ indicating the County's agreement with these changes and requesting that the DEQ issue its approval with these modifications. Examples of such a letter are enclosed.

The DEQ believes that the Amendment is not approvable without the modifications outlined above. If the County decides not to agree to have the DEQ make the changes as part of the approval process, the Office of Waste Management and Radiological Protection will recommend that the DEQ not approve the Amendment as written

If you have any questions or comments, please contact me at the telephone number below; via e-mail at millerc1@michigan.gov; or DEQ, P.O. Box 30241, Lansing, Michigan 48909-7741.

Sincerely,

Christina Miller
Sustainable Materials Management Unit
Solid Waste Section
Office of Waste Management and
Radiological Protection
517-614-7426

Enclosures
cc: Ms. Rhonda S. Oyer, DEQ
Delta County File

DICKINSON COUNTY
BOARD OF COMMISSIONERS

Board Chairman: Henry Wender
Vice Chairman: John P. Degenaer, Jr.
Commissioners: Barbara J. Kramer
Ann Martin
Joe Stevens
Controller/Administrator: Nicole F. Frost
Assistant Controller: Sonya Pugh

ENCLOSURE EXAMPLE LETTER

July 3, 2014

Ms. Christina Miller
Sustainable Materials Management Unit
Solid Waste Section
Office of Waste Management and Radiological Protection
MDEQ
P.O. Box 30241
Lansing, MI 48909-7741

Dear Ms. Miller:

SUBJECT: Dickinson County Solid Waste Management Plan Amendment Modification

As a follow up to your letter dated June 23, 2014, the Dickinson County Board of Commissioners respectfully requests the DEQ to issue its approval of the Dickinson County Solid Waste Management Plan (Plan) Amendment, and agrees with the DEQ administratively making the modification as discussed below.

The modification recommended by the DEQ involves the facility description for the Niagara Development, LLC Type III Landfill (Niagara) found on pages II-4 and III-9 of the Plan. Specifically, the stated "Total area sited for use: 29 Acres" in the amendment is in need of modification as it is contrary to the intent of the County.

The intent of the County was to allow for Niagara landfill to expand 68 acres, the total area of property at the facility. The "total area sited for use" acres identified in the Niagara facility descriptions on pages II-4 and III-9 should be changed to 68 acr

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JUL 09 2014
DEQ-RMD

Courthouse, P.O. Box 609, Iron Mountain, Michigan 49801 • Phone: 906.774.2573 • Fax: 906.774.3686

AIR QUALITY DIVISION See Map - ❻	**PROFESSIONAL ABATEMENT SERVICES, INC., MELVINDALE, WAYNE COUNTY.** Written comments are being accepted on a proposed consent order to administratively resolve alleged air pollution violations. You may obtain electronic copies of the proposed consent order and Staff Activity Report at www.deq.state.mi.us/aps/downloads/Enforcement/AQD-Consent-Orders.shtml. Submit written comments to Jason Wolf, Michigan Department of Environmental Quality, Air Quality Division, P.O. Box 30260, Lansing, Michigan 48909. Written comments will be accepted by email and all statements must be received by February 11, 2015 to be considered by the decision-maker prior to final action. If a request is received in writing by February 11, 2015, a public hearing may be scheduled. Information Contact: ***Jason Wolf,*** Air Quality Division, wolfj2@michigan.gov or 517-284-6772. Decision-maker: ***Lynn Fiedler,*** Air Quality Division Acting Chief.
OFFICE OF WASTE MANAGEMENT AND RADIOLOGICAL PROTECTION See Map - ❻	**DELTA COUNTY SOLID WASTE MANAGEMENT PLAN AMENDMENT.** Consideration of Department of Environmental Quality approval of the locally-approved amendment to the Delta County Solid Waste Management Plan (Plan Amendment). Delta County submitted this locally-approved Plan Amendment on November 21, 2014. Information Contact: ***Ms. Christina Miller***, 517-614-7426, millerc1@michigan.gov. Decision-maker: ***Mr. Bryce Feighner, P.E.***, Chief, Office of Waste Management and Radiological Protection.
WATER RESOURCES DIVISION See Map - ❼	**PROPOSED PRIVATE USE AGREEMENT, MACKINAC COUNTY.** Proposed private use agreement for 3.18 acres of Lake Michigan public trust bottomlands for a commercial fishing harbor, Hendricks Township, Mackinac County. File LM 287 Sault Ste. Marie Tribe of Chippewa Indians. Contact: ***Tom Graf,*** Water Resources Division, 517 284-5561; graft@michigan.gov. Decision-maker: ***Water Resources Division Chief.***
WATER RESOURCES DIVISION See Map - ❽	**PROPOSED PRIVATE USE AGREEMENT RENEWAL, LEELANAU COUNTY.** Proposed renewal for a second term of 25 years for a 0.11-acre parcel of Lake Michigan public trust bottomlands for boat club, Leelanau Township, Leelanau County. File AS-087 Omena Traverse Yacht Club. Contact: ***Tom Graf,*** Water Resources Division, 517 284-5561; graft@michigan.gov. Decision-maker: ***Water Resources Division Chief.***

Proposed Settlements of Contested Cases

NONE

Administrative Rules Promulgation

AIR QUALITY DIVISION	**PART 55, AIR POLLUTION CONTROL, NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT, 1994 PA 451, AS AMENDED.** The Air Quality Division will be holding a comment period and public hearing on January 26, 2015, at 1:30 p.m. on proposed revisions to administrative rules promulgated pursuant to Part 55, of the Natural Resources and Environmental Protection Act, 1994 PA 451 (NREPA). The rules are identified as Part 9, Emission Limitations and Prohibitions – Miscellaneous. The comment period and hearing will address requirements relative to the state administrative rules and revisions to Michigan's State Implementation Plan under the federal Clean Air Act. The purpose of these rules revisions is to adopt by reference specific federal regulations and industry testing methods, update some adoption by reference language, and move all adoptions by reference in the AQD rules to R 336.1902 to make the rules easier to use. The revisions will also remove obsolete compliance dates. The public hearing will be held on Monday, January 26, 2015, at 1:30 p.m., in the William Ford Conference Room, Constitution Hall, 2nd Floor South Tower, 525 West Allegan Street, Lansing, Michigan 48933. If there are no participants or if all those present have been offered the opportunity to speak, the hearing will close at 2:30 p.m. Copies of the proposed rules (ORR 2013-109 EQ) can be downloaded from the Internet through the Office of Regulatory Reinvention at www.michigan.gov/orr. Click on "Pending Rule Changes" in the left column. Under "Rules by Department," click on "Environmental Quality." Scroll to 2013-109 EQ and click on "Revision Text." Copies of the rules may also be obtained by contacting Michigan Department of Environmental Quality, Air Quality Division, P.O. Box 30260, Lansing, Michigan 48909-7760. Phone: 517-284-6740, Fax: 517-241-7499, or debrulerc@michigan.gov. Written comments will be accepted until 5:00 p.m. on January 26, 2015, and should be mailed to the address listed above. Information Contact: ***Cari DeBruler***, Air Quality Division, debrulerc@michigan.gov or 517-284-6740. Decision-maker: ***DEQ Director.***

EXECUTIVE SUMMARY

CONCLUSIONS

The Solid Waste Planning Committee reviewed and discussed various scenarios and options of waste disposal. Alternatives ranged from ceasing operations of the present county landfill and exporting wastes, to continuing with the landfilling of wastes locally.

The alternatives were assessed as to their consistency with solid waste management goals and objectives, their economic feasibility and the likelihood of receiving public approval.

The Delta Solid Waste Management Authority (Landfill Authority) recently, as a result of negotiations with the Department of Environmental Quality, reconstructed its landfill facility and has an expected 28 years of capacity. The Landfill Authority has financial commitments for bonds for the reconstruction activities.

The preferred alternative is continue with landfilling of waste at the Delta Landfill, with efforts directed at resource recovery of recycling and composting to prolong the life of the landfill. Diverting hazardous materials from the waste stream would prevent possible contamination while preserving the landfill liner integrity by lessening the potential of its failure.

SELECTED ALTERNATIVES

Disposal of residential household and industrial waste is provided at the Delta Landfill. The Delta Solid Waste management Authority has recently reconstructed its Type II landfill facility and has an expected life of 28 years.

Escanaba Paper Company provides for the disposal of generated industrial and construction & demolition waste at all integrated facilities located within the facility boundary of the Escanaba Paper Company at its company-owned and maintained landfill.

Collection of solid waste is hauled by both private haulers and the municipalities of the Cities of Escanaba and Gladstone, and the Village of Garden. A transfer station owned and operated by Garden Township, hauls wastes collected at that site to the Delta Landfill. Individuals can direct haul wastes to the Delta Landfill.

Solid waste is authorized to be imported from Alger, Baraga, Chippewa, Dickinson, Gogebic, Houghton, Iron, Keweenaw, Luce, Mackinac, Marquette, Menominee, Ontonagon and Schoolcraft Counties for primary disposal. Acceptance of waste at the Delta Landfill is contingent upon acceptance of the waste for disposal by the Delta Solid Waste Management Authority, with a maximum of 24,000 tons a year from other counties.

Solid waste is authorized to be exported to Alger, Baraga, Chippewa, Dickinson, Gogebic, Houghton, Iron, Keweenaw, Luce, Mackinac, Marquette, Menominee, Ontonagon, and Schoolcraft Counties. Exportation of solid wastes, other than waste generated by Escanaba Paper Company is permitted when there is a discontinuance of Delta Landfill operations. Waste that cannot be accepted at the Delta Landfill or the waste is processed through a transfer station owned or operated by the Landfill Authority may be exported.

DATA BASE

Essentially all the waste generated within Delta County is disposed of at the Delta Landfill, in accordance with the Delta County flow control ordinance. Type III waste (inclusive of industrial waste, sludge, ash and construction & demolition waste) generated by operations of Escanaba Paper Company and integrated facilities located within the facility boundary of Escanaba Paper Company is disposed at its landfill. Municipal sludge is generated from both the water and wastewater treatment operations of the cities of Escanaba and Gladstone. The following chart details the amount of waste generation by source.

Waste Generation in Delta County (as reported from various sources)			
	Current Annual	Five Year	Ten Year
Delta Landfill			
Residential	13,899.01 tons	14,176.99 tons	14,460.53 tons
Commercial	9,342.92 tons	9,511.42 tons	9,701.65 tons
Construction/Demolition	4,414.76 tons	4,503.06 tons	4,593.12 tons
Industrial (ash & petroleum soil)	11,685.08 tons	11,918.78 tons	12,157.16 tons
City of Escanaba			
Municipal Sludge	319 tons	325.385 tons	331.89 tons
City of Gladstone			
Municipal Sludge	75 tons	76.5 tons	78.03 tons
Escanaba Paper Landfill (Escanaba Paper Company)			
Industrial Sludge	56,000 cubic yards	58,800 cubic yards	61,700 cubic yards
Industrial Waste (ash)	58,000 cubic yards	60,900 cubic yards	64,000 cubic yards
Industrial Waste	TBD		
C & D Debris	TBD		

The Delta Solid Waste Management Authority has recently completed reconstruction of two cells (3A and 3B) at the Type II landfill with a double composite liner. The Landfill Authority has closed Cell2 with final cover, as well as the Type III landfill. Effective January 31, 1998, the Landfill Authority stopped accepting waste for disposal in Cell 1 and the Type III landfill. The closures and reconstruction activities were required as part of a consent agreement between the Michigan Department of Environmental Quality and Delta Solid Waste Management Authority. In 1996, the DEQ discovered abnormally high levels of iron and manganese in test wells at the landfill. In addition the landfill was having problems with its leachate collection system. Based on current waste volumes, the reconstructed landfill is expected to have a 28 year capacity.

DATA BASE

Solid Waste Disposal Areas for Delta County

Delta County Solid Waste Landfill is located in the North ½ of Section 22, Township 39 North, and Range 23 West in the City of Escanaba.The land is leased by Delta County from the City of Escanaba. Delta County subleases the land to the Delta Solid Waste Management Authority (Landfill Authority). The landfill serves as the disposal site for Type 11 and Type III wastes generated within Delta County. The facility is located on a 63.2 acre parcel, of which 8.70 acres are permitted as a landfill. With an estimated yearly disposal volume of 25,000 tons, the landfill has an estimated lifetime of 28 years.

Garden TownshipTransfer Station is located in the Southeast ¼ of the Northeast ¼ of Section 16, Township 40 North, Range 18 West, and Garden Township. Garden Township constructed the transfer station using funding through the Clean Michigan Fund. The transfer station accepts Type II wastes from the surrounding area. The size of the structure is 65 feet by 17 feet and contains a roll-off container, compactor pit, hopper and attendant's office and rest room. An adjacent garage houses the facility's roll-off truck. The wastes are hauled to the Delta Landfill.

Escanaba Paper Company operates a landfill in Sections 25 & 36, Township 40 North, and Range 23 West for disposal of wastes generated by integrated facilities located within the facility property. There are 2,060 acres of facility property with 132.4 acres permitted as a landfill with an estimated life of 37 years.

FACILITY DESCRIPTIONS

Facility Type: Type III Landfill (Industrial and C&D Landfill)

Facility Name: Escanaba Paper Company

County: Delta Location: Town: 40N Range: 23W Section(s): 25, 36

Map identifying location included in Attachment Section: ☒ Yes No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes

Public ☒ Private Owner: Escanaba Paper Company

Operating Status (check)	Waste Types Received (check all that apply)
☒ open	residential
closed	commercial
☒ licensed	☒ industrial
unlicensed	☒ construction & demolition*
construction permit	☒ contaminated soils*
open, but closure pending	special wastes **
(New facility)	☒ other: asbestos waste

* Authorized to be accepted upon issuance of a construction permit or other necessary approvals from the MDEQ

** Explanation of special wastes, including a specific list and/or conditions:

RETURN TO APPROVAL LETTER

Site Size:

Total area of facility property:	2060 acres
Total area site for use:	132.4 acres
Total area permitted:	132.4 acres
Operating:	42 acres
Not excavated:	90.4 acres
Current capacity:	4,200,000 tons or ☒ yds^3
Estimated lifetime:	37 years
Estimated days open per year:	365 days
Estimated yearly disposal volume:	114,000 tons or ☒ yds^3

(if applicable)

Annual energy production:

Landfill gas recovery projects:	N/A megawatts
Waste-to-energy incinerators:	N/A megawatts

DATA BASE

SOLID WASTE COLLECTION SERVICES AND TRANSPORTATION INFRASTRUCTURE

The following describes the solid waste collection services and transportation infrastructure that will be utilized within the County to collect and transport solid waste.

Service Provider	Public/Private	Service Area	Payment	Disposal Facility
Garden TownshipTransfer Station	Public	Village of Garden, Garden Township, Fairbanks Twp.	Two mils on Garden Township property and per bag charge for non-township residents	Delta County Landfill
City of Escanaba	Public	City of Escanaba	City property tax Added fee	Delta County Landfill
City of Gladstone	Public	City of Gladstone	City General Fund Added fee	Delta County Landfill
Delta Disposal	Private	Delta County	Customer	Delta County Landfill
Great American Disposal	Private	Walmart and Bark River	Customer	Delta County Landfill
Nichols Disposal	Private	Delta County	Customer	Delta County Landfill
Escanaba Paper Company	Private	Escanaba Paper Company	Escanaba Paper Company	Escanaba Paper Company Landfill

Municipal Collection Services:

The City of Escanaba provides residential and commercial collection services within the City. This service is supported financially through the general property tax and a separate utility fee. A special utility fee of $3.00 to $12.00 per month is charged to each single family home, apartment or commercial business in the city. This fee was established to help offset collection and disposal costs.

The City of Gladstone provides residential and commercial collection services within the City. A utility fee of $4.00 monthly, in combination with general property tax revenues, supports this service. The additional utility fee has been levied since August 1, 1997, to help offset increased landfill tipping fees.

The Garden TownshipTransfer Station located in Garden Township accepts general household (Type II) solid wastes. The transfer station is owned and operated by Garden Township. Operational costs of the transfer station are provided through a 2 mill property tax levy. Persons living outside of Garden Township may use the transfer station on a pay-per-bag basis. Solid waste collected at the facility is hauled to the Delta County Landfill for disposal.

Village of Garden provides residential and commercial collection service within its boundaries. The waste is hauled to the Garden TownshipTransfer Station. Operational and maintenance costs are provided through the Village property tax.

Private Collection Services:

The private collection services of Escanaba pick-up Service and Delta Sanitation merged in August of 1997 to form Delta Disposal. Delta Disposal provides residential and commercial collection services throughout Delta County. The waste is transported to the Delta County Landfill. The service charge is based on the frequency of collection and type of container and service provided.

Great American Disposal provides collection services for commercial sites in the City of Escanaba (such as WalMart) and residential collection in the western section of Delta County. The service charge is based on the frequency of collection and type of container and service provided.

Nichols Disposal provides residential and commercial collection services. This service charge is based on frequency of collection and type of container and service provided.

Escanaba Paper Company provides for waste hauling and disposal for all solid waste generated within the facility property. The costs are the responsibility of Escanaba Paper Company.

The Delta County Landfill allows individuals to haul and dispose of waste at the current rate of $48.00 per ton. The minimum disposal fee is $5.00 for up to 230 pounds of waste.

RETURN TO
APPROVAL
LETTER

DATA BASE

EVALUATION OF DEFICIENCIES AND PROBLEMS

The following is a description of problems or deficiencies in the existing solid waste system.

- Increased Recycling vs. Waste to sustain operations: Based on the current tipping fee of $48.00 a ton, the Delta Landfill needs more than 2,000 tons per month to cover operations and repayment of the landfill bonds. A dramatic increase in recycling rate for the county could adversely impact the landfill finances, but at the same time recycling could prolong the air space available at the landfill. The landfill authority could experience a short term cash flow problem, but in the future would not have to construct new cells as planned. An increase in recycling efforts may result in an increase in tipping fees in the short-term, but will have long-term environmental and financial benefits.

- Flow Control: There is the concern that there is waste leaving the county in violation of the county flow control ordinance. There have been several instances of building demolition's where the waste was brought to a landfill in another county or governmental agencies allowing waste to be disposed of out of county. Delta County needs to continue to monitor and actively enforce the flow control ordinance. The County has increased the fine to $500 a day for violation but the ordinance should be reexamined to assure that there is no financial gain to utilize an out-of county landfill. Violators of the ordinance should compensate the Landfill Authority for the difference in the out of county tipping fee and the tipping fee charged at the Delta Landfill, in addition to the $500 per day fine. And/or jail time.

  Demolition permits issued by the respective jurisdictions should indicate that all demolition waste must be delivered to the Delta Landfill in conformance with the Delta County Flow Control Ordinance. As more buildings are torn down in the county, there is the chance that more waste will be transported out of county.

- Escanaba Paper Company: Escanaba Paper Company has operations as well as land holdings in other counties in the Upper Peninsula. A possible scenario is the Company may have oil or barrels illegally dumped on its property which the Company needs to dispose of. For liability reasons, the Company would like to have the option of transporting wastes generated at its operations or wastes found on its own property disposed of at its own landfill located in Delta County. Flow control in Marquette County prohibits the company from bringing these· wastes into Delta County for disposal at its landfill. The present Delta County Solid Waste Plan also prohibits such waste to be brought into Delta County. The new updated county plan should recognize that this waste should be considered as industrial and be allowed to come into the county for disposal at the Escanaba Paper Company Landfill.

- Waste Generation to Increase: An increase in waste generation amount is likely as the county population grows, which will tend to improve the landfill's revenue situation. With an expected increase in tonnage disposed at the Delta Landfill, an increase in recycling participation may not have a negative impact on the landfill's cash flow.

Pays a reduced fee for the amount of ash that is used as daily cover; at present, the Landfill Authority receives money for its daily cover. If and when the power plant closes, the Landfill Authority will have to pay for its daily cover.

Due to better utilization and more efficient management of operations, there is less ash being generated than in previous years; The Landfill Authority will need to purchase sand for daily cover.

- Contingency Disposal Agreements: Now that the Delta Landfill has secured its operating permit from the DEQ, the Landfill Authority should proceed with negotiations with landfills in surrounding counties, especially Marquette, Alger and Menominee Counties, for a contingency /reciprocal use agreements in case a problem develops with the landfill in the future.

The Landfill Authority should have discussions with Escanaba Paper Company on the use of its landfill for a short-term basis in the case of an immediate emergency. The agreement may be reciprocal to provide Escanaba Paper Company a disposal facility they could utilize on a short term basis for an immediate emergency. Since the Escanaba Paper landfill is a Type III landfill, it would be restricted to the Type III waste being disposed at the Delta County Landfill, and not the Type II waste being disposed at the Delta County Landfill. The Escanaba Paper Landfill's operating license may further restrict the kind of Type III waste that can be accepted at this landfill. The language of a reciprocal agreement would specify what type of waste can be disposed at the respective landfills.

- Leachate Line at the landfill: The leachate line from the landfill to the Escanaba city sewer system needs to be upgraded from a two inch line to a four inch line to clean and maintain. The City of Escanaba realizes that an eight inch sewer line would be beneficial in order to provide sewer services to any business or industry that may want to locate along 19th Avenue North. Cost for the increase in the size of the line could be proportionally shared between the Landfill Authority and the City.

- Illegal Dumping: As the rates for waste disposal increase, there is the problem of people disposing waste illegally in the woods on public and private lands.

- Ongoing Recycling Education: For the voluntary recycling program to be effective, an ongoing public education program is needed. Brochures could be distributed to the public at the landfills and regular advertising of the program.

DATA BASE

SOLID WASTE MANAGEMENT ALTERNATIVES The following briefly describes all solid waste management systems considered by the County and how each alternative will meet the needs of the County. The manner of evaluation and ranking of each alternative is also described. Details regarding the Selected Alternatives are located in the following section. Details regarding each non-selected alternative are located in Appendix B.

There are a number of alternatives which have been considered regarding management of solid wastes in Delta County:

Alternative #1:

- Cease county landfill operations: The Delta Landfill would cease operations and existing landfill cells would be closed. All waste would be shipped to a landfill out of county. The waste could be processed and hauled by either the Landfill Authority by its own employees or under contract with a private firm to an out-of county landfill for disposal. The cost for such an arrangement is estimated to be $58.50 per ton. Closure and past-closure costs would exceed $20 million.

All waste generated within the Escanaba Paper Company property would continue to be disposed of at its site. The shipment of the industrial and/or construction & demolition waste from the property to an out- of-county site would have a dramatic negative impact on its operations.

Alternative #2:

- Waste Incineration: All wastes collected in the county would be incinerated for generating electricity. Waste materials that cannot be reduced, reused, or recycled would be separated into combustible and non-combustible materials. The only materials requiring landfilling would be incinerator ash and non-combustibles such as concrete rubble.

Nationally, about 14 percent of municipal solid waste is incinerated which indicates· it is still a viable option in some areas. In Michigan, however, due largely to increased regulation of air emissions, the popularity of incineration has declined and the cost of operation risen.

Challenges facing an incineration alternative include locating a market for the energy produced, complying with air emission standards, and existing financial commitments to the landfill.

Based on previous plans and studies, it was determined there was not enough waste generated in Delta County to consider it feasible.

The primary benefit is the preservation of landfill space through a significant reduction in the amount of material being disposed. Secondary benefits are: availability of an alternate fuel for energy production and greater attention to recycling.

Alternative #3:

- Organic waste conversion: Waste would be converted to a pellet that would be burned as

SELECTED SYSTEM

There are some outlying areas in the county which do not receive curbside recycling service. Efforts need to be explored to expand the service, through encouraging private haulers to provide the service or the Landfill Authority providing the service.

The manned recycling center has expanded hours.

- Hazardous Waste Collection Program: As a result of the Consent Agreement with the DEQ, the Landfill Authority will has instituted a Household Hazardous Waste Collection program, in addition to being a depository for pesticides collected from throughout the UP. Through a State grant from the Michigan Department of Agriculture, the Delta Solid Waste Management Authority has become the central deposit point for unneeded pesticides from throughout the Upper Peninsula. Program collection and disposal costs are reimbursable; administrative costs are the responsibility of the Authority.

- Escanaba Paper Company: All waste generated as a result of operations within Escanaba Paper Company's facility property in Delta county would be landfilled at its own landfill facility, including industrial waste and construction & demolition debris. All costs would be the company's responsibility.

- Enforcement and Local Ordinance/Resolutions: The county solid waste flow control ordinance will remain in effect to assure that residential and commercial waste generated in the county (with the exception of waste generated within Escanaba Paper Company's facility boundary) is disposed of at the Delta Landfill. Local units will be allowed the opportunity to implement rules and regulations regarding the collection and funding of programs within their respective jurisdiction.

FACILITY DESCRIPTIONS

Facility Type: Type III Landfill (Industrial and C&D Landfill)

Facility Name: Escanaba Paper Company

County: Delta Location: Town: 40N Range: 23W Section(s): 25, 36

Map identifying location included in Attachment Section: ☒ Yes No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes

Public ☒ Private Owner: Escanaba Paper Company

Operating Status (check)	Waste Types Received (check all that apply)
☒ open	residential
closed	commercial
☒ licensed	☒ industrial
unlicensed	☒ construction & demolition*
construction permit	☒ contaminated soils*
open, but closure pending	special wastes **
(New facility)	☒ other: asbestos waste

* Authorized to be accepted upon issuance of a construction permit or other necessary approvals from the MDEQ

** Explanation of special wastes, including a specific list and/or conditions:

RETURN TO APPROVAL LETTER

Site Size:

Total area of facility property:	2060 acres
Total area site for use:	132.4 acres
Total area permitted:	132.4 acres
Operating:	42 acres
Not excavated:	90.4 acres
Current capacity:	4,200,000 tons or ☒ yds^3
Estimated lifetime:	37 years
Estimated days open per year:	365 days
Estimated yearly disposal volume:	114,000 tons or ☒ yds^3

(if applicable)

Annual energy production:

Landfill gas recovery projects:	N/A megawatts
Waste-to-energy incinerators:	N/A megawatts

SITING REVIEW PROCEDURES

AUTHORIZED DISPOSAL AREA TYPES

The following solid waste disposal area types may not be sited by this Plan. Any proposal to construct a facility listed herein shall be deemed inconsistent with this Plan.

RETURN TO APPROVAL LETTER

SITING CRITERIA AND PROCESS

Expansion or constructions of the following solid waste facilities are considered to be consistent with the Delta Solid Waste Management Plan Update:

- Expansions of the Delta Landfill facility located in Section 22, Township 39 North, Range 23 West, Delta County is permitted.

- Expansions of and/or changes in disposal area types to include other non-Type II wastes at the Escanaba Paper Company landfill facility located in Sections 25 and 36, Township 40 North, Range 23 West are permitted.

- Construction of a solid waste transfer station in Section 22, Township 39 North, Range 23 West, and Delta County is permitted.

Facilities other than those identified above require a formal amendment to the Plan Update in order to be considered consistent with the County Solid Waste Management Plan. Ten years of landfill capacity has been provided to Delta County and therefore Delta County chooses not to have a siting process in its Plan.

Volume Reduction Techniques:

- The Delta Landfill Authority will continue to monitor the use of the compactor at the landfill to save valuable airspace at the facility.

Collection Process:

- Local units of governments will retain the right to collect solid waste within their jurisdiction, contract with private haulers or allow the private sector to assume the service. Private haulers will continue to provide waste collection services to residences and businesses within the county. The cities of the Escanaba and Gladstone and the village of Garden (and other municipal waste haulers) will be responsible for funding their respective programs in accordance with state statutes.

- Garden Township will continue with operation of the Garden TownshipSolid Waste Transfer Station transporting the wastes to the Delta Landfill. The Township could contract with a private firm for operation and management of the facility.

Operational costs of the facility will be the responsibility of Garden Township. Funds could come from the township's general fund, extra voted millage, special assessment and/or per bag fee charged to non-residents. Through agreements, the Townships of Nahma and Fairbanks could contribute toward the operational costs.

Landfilling:

- The landfilling of wastes will remain the primary waste disposal option.

- The Delta Solid Waste Management Authority will continue with its role of providing for the disposal of waste in Delta County. Construction of new cells and\or expansions of the existing site will occur as needed.

Expansion costs should be funded through the tipping fee; sufficient funds should be set aside for construction costs, as well as reserve fund to pay for the eventual closure of the facility. The Authority should periodically evaluate the user fee to make certain the tonnage fee collected adequately provides sufficient revenue for operations, future expansion and closure activities.

- Escanaba Paper Company will continue to manage all non-hazardous solid wastes generated within the facility property by disposal at its landfill. Construction of new cells and expansions at the existing facility will occur as needed. Operating costs are the responsibility of Escanaba Paper Company.

ADVANTAGES AND DISADVANTAGES OF THE SELECTED SYSTEM:

Each solid waste management system has pros and cons relating to its implementation within the County. Following is an outline of the major advantages and disadvantages for this Selected System.

ADVANTAGES:

1. There are 28 years of capacity for waste disposal at the Delta Landfill.

2. Cost savings will continue as a result of compacting waste at the Delta Landfill.

3. The Landfill Authority structure provides for representation of cities and townships to discuss solid waste issues and concerns.

4. Public ownership of the landfill will assure the tipping fee is kept to a minimum with environmentally sound management.

5. The county-wide recycling and composting program will continue to divert materials away from the waste stream, thus extending the life of the landfill.

6. All waste generated through Escanaba Paper Company facility property operations will be economically disposed of at its own disposal site.

7. Hazardous and pesticide collection program will assure that the integrity of the landfill is maintained.

DISADVANTAGES:

1. There is a lack of final disposal options available to the consumer.

2. After the landfill is closed, on-going closure activities will be the responsibility of the Landfill Authority and the City of Escanaba.

3. The present voluntary recycling program does not result in 100% participation of the public.

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

JENNIFER M. GRANHOLM
GOVERNOR

STEVEN E. CHESTER
DIRECTOR

January 16, 2007

Mr. Thomas Elegeert, Chairman
Delta County Board of Commissioners
310 Ludington Street
Escanaba, Michigan 49829

Dear Mr. Elegeert:

The locally-approved amendment to the Delta County Solid Waste Management Plan (Plan Amendment) received by the Department of Environmental Quality (DEQ) on November 15, 2006, is hereby approved.

The Plan Amendment adds Section 21 and the south half of Section 15 to the description in the Siting Criteria and Process of the area to which the Delta County landfill facility may be expanded. The Plan Amendment also provides that any and all references to Mead Paper throughout the Delta County Solid Waste Management Plan be changed to New Page. The DEQ has determined that the Plan Amendment complies with the provisions of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and its administrative rules.

The DEQ would like to thank Delta County for its efforts in addressing its solid waste management issues. If you have any questions, please contact Ms. Rhonda Oyer Zimmerman, Chief, Solid Waste Management Unit, Storage Tank and Solid Waste Section, Waste and Hazardous Materials Division, at 517-373-4750.

Sincerely,

Steven E. Chester
Director
517-373-7917

cc: Senator Michael Prusi
Representative Tom Casperson
Mr. David Gillis, Central Upper Peninsula Planning & Development Regional Commission
Mr. Leo Evans, Delta County Solid Waste Committee
Mr. Joe Erickson, Delta County Administrator
Mr. Jim Sygo, Deputy Director, DEQ
Ms. JoAnn Merrick, Senior Executive Assistant to the Director, DEQ
Ms. Carol Linteau, Legislative Liaison, DEQ
Mr. George W. Bruchmann, DEQ
Mr. Steven Sliver, DEQ
Mr. Robert Schmeling, DEQ
Ms. Rhonda Oyer Zimmerman, DEQ
Ms. Becky Beauregard, DEQ
Delta County File

CUPPAD
Central Upper Peninsula Planning And Development Regional Commission
2415 14th Avenue South • Escanaba, MI 49829
906.786.9234 • Fax: 906.786.4442 • 800.562.9828 • cuppad@chartermi.net

July 27, 2006

Joe Erickson
Delta County Administration
310 Ludington Street
Escanaba, MI 49829

Dear Joe,

On behalf of the Delta County Solid Waste Planning Committee, we are requesting the County Board of Commissioners review the enclosed County Solid Waste Plan Amendments and approve the Amendments at your earliest convenience.

The Delta County Solid Waste Management Authority made a formal request to amend the solid waste plan siting criteria to allow for future landfill expansions into Sections 21 and 15. The Solid Waste Planning Committee held a public hearing on the amendment (no one attended the public hearing except for Committee members and Morgan Tatrow from Garden Township) and has subsequently approved the plan amendment. Attached is the page from the Solid Waste Plan with the amendment in bold. In addition, all references to Mead Paper in the plan have been changed to New Page.

Minutes from the two Solid Waste Planning Committee meetings are attached, along with a complete copy of the Delta County Solid Waste Management Plan, with proposed amendments.

We have also attached a simple resolution for your consideration. Once the County Board approves the plan amendment, we will send it to all local units of government in Delta County to obtain at least 67 percent approval, and then transmit to the state for their approval.

Thank you.

Sincerely,

Dave

David C. Gillis
Executive Director

Attachments

EXECUTIVE COMMITTEE & COUNTY REPRESENTED
Chairperson – L. Benson, *Menominee* • Vice-Chairperson – G. Corkin, *Marquette* • Secretary – J. Stevens, *Dickinson* • Treasurer – D. Erickson, *Schoolcraft*
Director – D. Bovin, *Alger* • Director – B.Nelson, *Delta* • Director – D. DuFour, *Schoolcraft* • Director – C. Bergquist, *Hannahville Indian Community*
Executive Director – David C. Gillis

RESOLUTION ON THE ADOPTION OF AN AMENDMENT TO THE DELTA COUNTY SOLID WASTE MANAGEMENT PLAN

Whereas, the Delta Solid Waste Management Authority has requested an amendment to the Delta County Solid Waste Plan to include Section 21 and the southern half of Section 15, Township 39 North, Range 23 West for possible Delta Landfill facility expansions; and

Whereas, the Delta County Solid Waste Planning Committee held a public hearing on the amendment on June 8, 2006, and has recommended the County Board approve the amendment. The amendment also includes any and all references to Mead Paper throughout the solid waste plan be changed to New Page.

BE IT RESOLVED, the Delta County Board of Commissioners approve the following amendment to the Delta County Solid Waste Plan under the Siting Criteria and Process (page III-34) to read as follows: Expansions of the Delta Landfill facility located in Section 22, **Section 21, and the South half of Section 15,** Township 39 North, Range 23 West is permitted.

Motion to adopt the above resolution was made by Ruohomaki, supported by,

Schultz, and carried by the following vote 4 ayes 0 nays 1 absent.

Nancy J. Kolich

Nancy Kolich
Delta County Clerk

8-1-06
Date

SITING REVIEW PROCEDURES

AUTHORIZED DISPOSAL AREA TYPES

The following solid waste disposal area types may not be sited by this Plan. Any proposal to construct a facility listed herein shall be deemed inconsistent with this Plan.

SITING CRITERIA AND PROCESS

Expansion or constructions of the following solid waste facilities are considered to be consistent with the Delta Solid Waste Management Plan Update:

- Expansions of the Delta Landfill facility located in Section 22, **Section 21, and the South half of Section 15**, Township 39 North, Range 23 West, Delta County is permitted.

- Expansions of the Escanaba Paper Company (Mead Paper Publishing Division) landfill facility located in Sections 25 and 36, Township 40 North, Range 23 West is permitted.

- Construction of a solid waste transfer station in Section 22, Township 39 North, Range 23 West, Delta County is permitted.

Facilities other than those identified above require a formal amendment to the Plan Update in order to be considered consistent with the County Solid Waste Management Plan. Ten years of landfill capacity has been provided to Delta County and therefore Delta County chooses not to have a siting process in its Plan.

STATE OF MICHIGAN

JOHN ENGLER, Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

"Better Service for a Better Environment"

HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973

INTERNET: www.deq.state.mi.us

RUSSELL J. HARDING, Director

December 1, 1999

Mr. David Schultz, Chairperson
Delta County Board of Commissioners
310 Ludington Street
Escanaba, Michigan 49829

Dear Mr. Schultz:

The Department of Environmental Quality (DEQ) received the locally approved update to the Delta County Solid Waste Management Plan (Plan) on June 8, 1999. Except for the items indicated below, the Plan is approvable. As outlined in the September 15, 1999 letter to Mr. Peter Van Steen from Mr. Seth Phillips, and as confirmed in your letter of September 21, 1999, to Mr. Phillips, the DEQ makes the following modifications to the Plan.

Page III-41 contains a list of nine general areas of regulation for which the 17 listed local units of government would be authorized to enforce local ordinances. Section 11538(8) of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), preempts enforcement of all local regulation of disposal area location, development, and operation except to the degree approved by the DEQ as part of the Plan. The purpose of this section is to permit the DEQ to ensure that any local disposal area regulation does not conflict with Part 115 or the DEQ's regulatory authority and responsibilities. It is the DEQ's conclusion that four of these nine areas are overly broad in scope and will conflict and interfere with the DEQ's regulatory authority and responsibilities under Part 115. Therefore, we cannot approve their inclusion in the Plan. In accordance with Section 11538(8) of Part 115, the following four items are hereby deleted from the Plan:

- Fee program instituted for collection, disposal, transfer, or processing of solid waste.
- Construction debris/demolition debris reduction or processing programs.
- Use and operations of a solid waste transfer station.
- Air pollution control ordinances.

Deletion of these items from the Plan prohibits local units of government from enforcing any such ordinances pertaining to a solid waste disposal area. If local governments have the legal authority to adopt any of these ordinances to regulate activities at other than solid waste disposal areas, deletion of these items from the Plan will not impact those local authorities.

With these modifications, Delta County's updated Plan is hereby approved and the county now assumes responsibility for the enforcement and implementation of this Plan.

By approving the Plan, the DEQ has determined that it complies with the provisions of Part 115 and the Part 115 Rules concerning the required content of solid waste management plans. Specifically, the DEQ has determined that the Plan identifies the enforceable mechanisms that authorize the state, a county, a municipality, or a person to take legal action to guarantee compliance with the Plan, as required by Part 115. The Plan is enforceable, however, only to the extent the county properly implements these enforceable mechanisms under applicable enabling legislation. The Plan, itself, does not serve as such underlying enabling authority and DEQ's approval of the Plan neither restricts nor expands the county's authority to implement these enforceable mechanisms.

The Plan may also contain other provisions that are neither required nor expressly authorized for inclusion in a solid waste management plan. The DEQ's approval of the Plan does not extend to any such provisions. Under Part 115, the DEQ has no statutory authority to determine whether such provisions have any force or effect.

Please ensure that a copy of this letter is included with copies of the approved Plan distributed by the county. The DEQ would like to thank the county for its efforts in addressing the solid waste management issues in the county. If you have any questions, you may contact Mr. Seth Phillips, Solid Waste Management Section, Waste Management Division, at 517-373-4750.

Sincerely,

Russell J. Harding
Director
517-373-7917

cc: Senator Donald Koivisto
Representative Douglas Bovin
Mr. Arthur R. Nash Jr., Deputy Director, DEQ
Ms. Cathy Wilson, Legislative Liaison, DEQ
Mr. Jim Sygo, DEQ
Ms. Joan Peck, DEQ
Mr. Robert Schmeling, DEQ - Marquette
Mr. Seth Phillips, DEQ
Mr. Matt Staron, DEQ
Delta County File

STATE OF MICHIGAN

JOHN ENGLER, Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

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HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973

INTERNET: www.deq.state.mi.us

RUSSELL J. HARDING, Director

REPLY TO:

WASTE MANAGEMENT DIVISION
PO BOX 30241
LANSING MI 48909-7741

September 15, 1999

Mr. Peter Van Steen
Central Upper Peninsula Planning and Development Regional Commission
2415 14th Avenue South
Escanaba, Michigan 49829

Dear Mr. Van Steen:

This letter is to follow up our telephone discussion of August 27, 1999, regarding approval issues with the updated Delta County Solid Waste Management Plan (Plan). In order to be able to recommend approval of the Plan, we need to modify it to delete four items on Page III-41. These changes would not actually be made to the text of the document, but rather, would be made by reference in the Department of Environmental Quality's (DEQ) approval letter for the Plan.

Page III-41 contains a list of 9 general areas of regulation for which the 17 listed local units of government would be authorized to enforce local ordinances. Four of the items on this list authorize overly broad and unspecified local regulatory power over disposal areas. Because these four items are so broad and general in scope we cannot evaluate the actual nature of regulation anticipated. As a result, we are unable to determine if these ordinances would conflict or otherwise interfere with DEQ's regulatory authority and responsibilities under Part 115, Solid Waste Management (Part 115), of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). Therefore, we cannot approve their inclusion in the Plan. The four items that need to be deleted as they appear in the Plan are:

- Fee programs instituted for collection, disposal, transfer, or processing of solid waste.
- Construction debris/demolition debris reduction or processing programs.
- Use and operations of a solid waste transfer station.
- Air pollution control ordinances.

Deletion of these items from the Plan will prohibit any local unit of government from enforcing any such ordinance as it would pertain to a solid waste disposal area. If local governments have the legal authority to adopt any of these ordinances to regulate activities at other than solid waste disposal areas, deletion of these items from the Plan will not impact those local authorities.

If Delta County agrees with having DEQ administratively make these modifications to the Plan as part of DEQ's approval of the Plan, please have a party who is authorized to act on the County's behalf in this regard provide a letter to us indicating the County's agreement with these changes and requesting that DEQ issue our approval with these modifications. We will then be able to proceed to bring this matter to conclusion. If Delta County does not agree with these changes please let me know that as well so we can proceed as necessary to complete action on the Plan.

If you have any questions please contact me at the number listed below or by e-mail at phillish@state.mi.us.

Sincerely,

Seth Phillips, Chief
Solid Waste Management Unit
Waste Management Division
517-373-4750

cc: Mr. Jim Johnson, DEQ
Delta County File

DELTA COUNTY BOARD OF COMMISSIONERS

ADMINISTRATION OFFICE
310 LUDINGTON STREET
ESCANABA, MICHIGAN 49829
PHONE: 906-789-5100
FAX: 906-789-5197

DAVID O. SCHULTZ, CHAIRMAN
THOMAS C. ELEGEERT, VICE CHAIRMAN
THOMAS J. BOYNE, ADMINISTRATOR

DARREL E. BENGRY, COMMISSIONER
DARYL A. MIRON, COMMISSIONER
THOMAS C. VITITO, COMMISSIONER

September 21, 1999

Seth Phillips, Chief
Solid Waste Management Unit
Waste Management Division
Department of Environmental Quality
PO Box 30241
Lansing, MI 48909

Dear Mr. Phillips:

I have read your September 15, 1999 letter addressed to Peter Van Steen regarding the approval issues with the updated Delta County Solid Waste Management Plan.

It was not Delta County's intention to conflict with or otherwise interfere with the Department of Environmental Quality's regulatory authority in dealing with those items.

Delta County agrees with having the DEQ administratively make modifications to the County Solid Waste Plan to delete references to the following items:

- Fee programs instituted for collection, disposal, transfer, or processing of solid waste.
- Construction debris/demolition reduction or processing programs.
- Use and operations of a solid waste transfer station.
- Air pollution control ordinances.

We request that the Department of Environmental Quality issue approval of the updated Delta County Solid Waste Management Plan with these modifications.

Sincerely,

David Schultz

David Schultz, Chair
Delta County Board of Commissioners

SEP 2 3 1999

DELTA COUNTY BOARD OF COMMISSIONERS

ADMINISTRATION OFFICE
310 LUDINGTON STREET
ESCANABA, MICHIGAN 49829
PHONE: 906-789-5100
FAX: 906-789-5197

DAVID O. SCHULTZ, CHAIRMAN
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THOMAS J. BOYNE, ADMINISTRATOR

DARREL E. BENGRY, COMMISSIONER
DARYL A. MIRON, COMMISSIONER
THOMAS C. VITITO, COMMISSIONER

September 21, 1999

Seth Phillips, Chief
Solid Waste Management Unit
Waste Management Division
Department of Environmental Quality
PO Box 30241
Lansing, MI 48909

Dear Mr. Phillips:

I have read your September 15, 1999 letter addressed to Peter Van Steen regarding the approval issues with the updated Delta County Solid Waste Management Plan.

It was not Delta County's intention to conflict with or otherwise interfere with the Department of Environmental Quality's regulatory authority in dealing with those items.

Delta County agrees with having the DEQ administratively make modifications to the County Solid Waste Plan to delete references to the following items:

- Fee programs instituted for collection, disposal, transfer, or processing of solid waste.
- Construction debris/demolition reduction or processing programs.
- Use and operations of a solid waste transfer station.
- Air pollution control ordinances.

We request that the Department of Environmental Quality issue approval of the updated Delta County Solid Waste Management Plan with these modifications.

Sincerely,

David Schultz

David Schultz, Chair
Delta County Board of Commissioners

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SEP 23 1999
OSTI

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JUN 0 8 1999
Waste Management
Division

DELTA COUNTY SOLID WASTE

MANAGEMENT PLAN

April 1999

Prepared by the Delta County Solid Waste Planning Committee with assistance from the CUPPAD Regional Commission

DELTA COUNTY

SOLID WASTE MANAGEMENT PLAN

AS REQUIRED BY SECTION 11539a OF
PART 115, SOLID WASTE MANAGEMENT, OF
THE NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT
1994 PA 451, AS AMENDED

John Engler, Governor
Russell J. Harding, Director

Michigan Department of Environmental Quality
Waste Management Division

1997 PLAN UPDATE COVER PAGE

The Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Part 115, Solid Waste Management, and its Administrative Rules, requires that each County have a Solid Waste Management Plan Update (Plan) approved by the Michigan Department of Environmental Quality (DEQ). Section 11539a requires the DEQ to prepare and make available a standardized format for the preparation of these Plan updates. This document is that format. The Plan should be prepared using this format without alteration. Please refer to the document entitled "Guide to Preparing the Solid Waste Management Plan Update" for assistance in completing this Plan format.

DATE SUBMITTED TO THE DEQ:

If this Plan includes more than a single County, list all counties participating in this Plan.

None

The following lists all the municipalities from outside the County who have requested and have been accepted to be included in the Plan, or municipalities within the County that have been approved to be included in the Plan of another County according to Section 11536 of Part 115 of the NREPA. Resolutions from all involved County boards of commissioners approving the inclusion are included in Appendix E.

Municipality	Original Planning County	New Planning County
None		

DESIGNATED PLANNING AGENCY PREPARING THIS PLAN UPDATE:

CUPPAD Regional Commission

2415 14th Avenue South, Escanaba, MI 49829

CONTACT PERSON: Peter Van Steen

ADDRESS: 2415 14th Avenue South

Escanaba, MI 49829

PHONE: 906.786.9234 FAX: 906.786.4442 (If Applicable)

E-MAIL: cuppad@up.net (If Applicable)

CENTRAL REPOSITORY LOCATION(S): CUPPAD Regional Commission, 2415 14th Avenue South, Escanaba, MI 49829

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EXECUTIVE SUMMARY

The following summarizes the solid waste management system selected to manage solid waste within the County. In case of conflicting information between the executive summary and the remaining contents of the Plan update, the information provided in the main body of the Plan update found on the following pages will take precedence over the executive summary.

OVERALL VIEW OF THE COUNTY (attach additional pages as necessary)

		% Land Use		% Economic Base*				
Twp or Municipality	Population	Rural	Urban	Ag*	For	Ind	Com	Oth
Baldwin	739	99.6	.4	8		44	29	19
Bark River	1648	98.5	1.5	5		35	39	21
Bay de Noc	314	99.5	.5	2		39	25	34
Brampton	1142	95.0	5.0	2		38	34	26
Cornell	527	99.6	.4	8		33	37	22
Ensign	675	98.8	1.2	6		32	34	28
Escanaba City	13659	51.0	49.0	1		26	45	28
Escanaba Twp.	3342	95.0	5.0	4		34	39	23
Fairbanks	315	90.3	9.7	47		27	13	13
Ford River	2002	97.2	2.8	3		28	43	26
Garden Twp.	494	99.6	.4	9		30	38	23
Gladstone City	4565	55.3	44.7	1		32	40	27
Maple Ridge	816	99.7	.3	6		28	45	21
Masonville	1709	99.0	1.0	6		27	44	23
Nahma	493	99.6	.4	3		34	50	13
Garden Village	281	75.9	24.1	9		25	40	26
Wells	5159	89.9	10.1	2		41	41	16

Total Population 37,780

*Ag = Agriculture; For = Forestry; Ind = Industry; Com = Commercial; Oth = All Other Economic Bases
Additional listings, if necessary, are listed on an attached page.

EXECUTIVE SUMMARY

CONCLUSIONS

The Solid Waste Planning Committee reviewed and discussed various scenarios and options of waste disposal. Alternatives ranged from ceasing operations of the present county landfill and exporting wastes, to continuing with the landfilling of wastes locally.

The alternatives were assessed as to their consistency with solid waste management goals and objectives, their economic feasibility and the likelihood of receiving public approval.

The Delta Solid Waste Management Authority (Landfill Authority) recently, as a result of negotiations with the Department of Environmental Quality, reconstructed its landfill facility and has an expected 28 years of capacity. The Landfill Authority has financial commitments for bonds for the reconstruction activities.

The preferred alternative is continue with landfilling of waste at the Delta Landfill, with efforts directed at resource recovery of recycling and composting to prolong the life of the landfill. Diverting hazardous materials from the waste stream would prevent possible contamination while preserving the landfill liner integrity by lessening the potential of its failure.

SELECTED ALTERNATIVES

Disposal of residential household and industrial waste is provided at the Delta Landfill. The Delta Solid Waste management Authority has recently reconstructed its Type II landfill facility and has an expected life of 28 years.

Mead Paper Company provides for the disposal of its generated industrial waste at its company-owned and maintained landfill.

Collection of solid waste is hauled by both private haulers and the municipalities of the Cities of Escanaba and Gladstone, and the Village of Garden. A transfer station, owned and operated by Garden Township, hauls wastes collected at that site to the Delta Landfill. Individuals can direct haul wastes tot he Delta Landfill.

Solid waste is authorized to be imported form Alger, Baraga, Chippewa, Dickinson, Gogebic, Houghton, Iron, Keweenaw, Luce, Mackinac, Marquette, Menominee, Ontonagon and Schoolcraft Counties for primary disposal. Acceptance of waste at the Delta Landfill is contingent upon acceptance of the waste for disposal by the Delta Solid Waste Management Authority, with a maximum of 24,000 tons a year from other counties.

Solid waste is authorized to be exported to Alger, Baraga, Chippewa, Dickinson, Gogebic, Houghton, Iron, Keweenaw, Luce, Mackinac, Marquette, Menominee, Ontonagon, and Schoolcraft Counties. Exportation of solid wastes, other than waste generated by Mead paper is permitted when there is a discontinuance of Delta Landfill operations. Waste that cannot be accepted at the Delta Landfill or the waste is processed through a transfer station owned or operated by the Landfill Authority may be exported.

INTRODUCTION

GOALS AND OBJECTIVES

To comply with Part 115 and its requirements, each Plan must be directed toward goals and objectives based on the purposes stated in Part 115, Sections 11538.(1)(a), 11541.(4) and the State Solid Waste Policy adopted pursuant to this Section, and Administrative Rules 711(b)(i) and (ii). At a minimum, the goals must reflect two major purposes of Solid Waste Management Plans:

(1) To utilize, to the maximum extent possible, the resources available in Michigan's solid waste stream through source reduction, source separation, and other means of resource recovery and;

(2) To prevent adverse effects on the public health and the environment resulting from improper solid waste collection, transportation, processing, or disposal, so as to protect the quality of the air, the land, and ground and surface waters.

This Solid Waste Management Plan works toward the following goals through actions designed to meet the objectives described under the respective goals which they support:

Goal 1: TO PROVIDE NEEDED SOLID WASTE MANAGEMENT SERVICES TO THE CITIZENS OF DELTA COUNTY AT THE LEAST POSSIBLE COST.

Objective 1a: Ongoing operation, maintenance, replacement and future construction costs of solid waste facilities should be recouped from users.

Objective 1b: Preference should be given to the solid waste management alternatives with the lowest long-term costs.

Objective 1c: Industries that generate very large volumes of solid waste should be encouraged to develop their own disposal facilities.

Objective 1d: Solid waste operations should establish and maintain reserve contingency funds for equipment replacement, closure costs, and expansion costs.

Objective 1e: Solid waste disposal operations should keep accurate, up-to-date records of expenses, income and volume of waste.

Objective 1f: Solid waste transfer, storage, collection and disposal sites should be located in close proximity of major waste sources and strategically located near major roads to minimize transportation costs.

Objective 1g: Consideration should be given to utilizing a volume-based pricing system for the collection of garbage.

Goal 2: TO ENSURE DISPOSAL OF SOLID WASTE IN A MANNER WHICH PROTECTS PUBLIC HEALTH AND MINIMIZES ADVERSE ENVIRONMENTAL EFFECTS.

Objective 2a: Strict measures should be implemented to assure that disposal of hazardous wastes and toxic materials is confined to disposal areas not specifically authorized to receive such wastes.

Objective 2b: The public should be provided clear and concise information regarding methods of source reduction, conservation and proper disposal of solid wastes.

Objective 2c: Qualified and experienced landfill operators should be employed to manage the day-to-day operations of disposal areas.

Objective 2d: Landfill operators should maintain the disposal sites as litter-free as possible.

Objective 2e: Precautions should be taken at solid waste transfer, collection and landfill sites to assure the safety of the work force, neighbors and users.

Objective 2f: Improve enforcement against illegal dumping of waste in unauthorized areas by encouraging enactment of local ordinances which provide for fines and other penalties and encourages witnesses to report illegal dumping by offering cash rewards.

Objective 2g: Continue the household hazardous waste collection program.

Goal 3: TO MAXIMIZE THE RECOVERY OF ENERGY AND MATERIALS FROM SOLID WASTES.

Objective 3a: The private sector, Delta Solid Waste Management Authority, and local units of government should expand programs to recover materials suitable for recycling from the waste stream.

Objective 3b: Collection programs or storage sites should continue to handle recovery of "white goods" and other materials.

Objective 3c: Consider the energy potential in the waste stream to the extent:

a. Environmental standards can be maintained; and
b. The cost of producing the energy is not prohibitive.

Objective 3d: Continue support for existing composting and recycling operations as a means of saving landfill space.

Objective 3e: Identify and develop markets for materials suitable for recycling.

Objective 3f: Encourage manufacturers in the County to use reclaimed materials from the County's waste stream in their production process.

Goal 4: INFORM CITIZENS ABOUT SOLID WASTE MANAGEMENT ISSUES AND CONCERNS.

Objective 4a: Encourage the availability of informational and educational materials relating to solid waste management, especially in the school classrooms.

Objective 4b: Provide opportunities to tour existing disposal, recycling and composting facilities and provide information about those facilities.

Objective 4c: Promote public awareness of solid waste issues using a variety of mediums including the Internet.

Objective 4d: Investigate the possibility of providing waste prevention programs throughout the County targeting commercial, industrial and residential waste streams.

☐ Note: Additional goals and objectives are listed on attached pages.

DATA BASE

Essentially all the waste generated within Delta County is disposed of at the Delta Landfill, in accordance with the Delta County flow control ordinance. Waste generated by operations of Mead Publishing Paper Division's Escanaba Paper Company is disposed at their landfill. Municipal sludge is generated from both the water and wastewater treatment operations of the cities of Escanaba and Gladstone. The following chart details the amount of waste generation by source.

WASTE GENERATION IN DELTA COUNTY (as reported from various sources)

	Current Annual	Five Year	Ten Year
Delta Landfill			
Residential	13,899.01 tons	14,176.99 tons	14,460.53 tons
Commercial	9,324.92 tons	9,511.42 tons	9,701.65 tons
Construction/Demolition	4,414.76 tons	4,503.06 tons	4,593.12 tons
Industrial (ash & petroleum soil)	11,685.08 tons	11,918.78 tons	12,157.16 tons
City of Escanaba			
Municipal Sludge	319 tons	325.38 tons	331.89 tons
City of Gladstone			
Municipal Sludge	75 tons	76.5 tons	78.03 tons
Escanaba Paper Landfill (Mead)			
Industrial Sludge	64,000 cubic yards	54,000 cubic yards	46,000 cubic yards
Industrial Waste (ash)	21,000 cubic yards	22,000 cubic yards	23,000 cubic yards

The Delta Solid Waste Management Authority has recently completed reconstruction of two cells (3A and 3B) at the Type II landfill with a double composite liner. The Landfill Authority has closed Cell 2 with final cover, as well as the Type III landfill. Effective January 31, 1998, the Landfill Authority stopped accepting waste for disposal in Cell 1 and the Type III landfill. The closures and reconstruction activities were required as part of a consent agreement between the Michigan Department of Environmental Quality and Delta Solid Waste Management Authority. In 1996, the DEQ discovered abnormally high levels of iron and manganese in test wells at the landfill. In addition the landfill was having problems with its leachate collection system. Based on current waste volumes, the reconstructed landfill is expected to have a 28 year capacity.

As part of the Consent Agreement with the DEQ, the Delta Solid Waste Management Authority has agreed to fund a Supplemental Environmental Program. With the Household Hazardous Waste Collection Program an estimated 200 tons of materials will be diverted from the county landfill.

Ash from the Escanaba Power Plant is used as alternate daily cover. The amount of ash used for cover is about the same each year.

Petroleum contaminated soil may be utilized as a source of daily cover upon completion of analytical testing. If analytical results indicate that soil is not suitable for "daily alternate cover" but is non-hazardous, it is landfilled as a Type II waste. Soil found to be hazardous is shipped to an appropriate facility. Soil found to be hazardous, is shipped to an appropriate facility. The amount of petroleum contaminated soil that needs disposal each year varies.

Municipal sludge from the cities of Escanaba and Gladstone are land applied and not disposed of at the landfill.

Over the past 12 years of operation of the county landfill, the annual average tons of 24,383 tons of combined Type II and Type III materials have been delivered to the landfill. The annual average of Type II waste landfilled was 20,118 tons and the annual average of Type III waste was 3,846 tons.

There was a less than 1% decrease in the amount of Type II waste brought into landfill in 1997 as compared to 1996. The amount of Type II waste landfilled since 1995 has declined almost 8% since 1995. The decrease in the amount of Type II waste brought into the landfill from 1996-1997 can be attributed in part to the county-wide recycling and composting programs in place. More extensive recycling education would likely reduce the amount of waste requiring disposal at the landfill.

The following chart depicts the tons of waste disposed at the county landfill since 1986.

WASTE DISPOSED OF AT THE DELTA SOLID WASTE MANAGEMENT AUTHORITY LANDFILL	
TYPE II & III LANDFILLS	
ACCUMULATED TONS	292,595
TOTAL TONS, 1986	21,263
TOTAL TONS, 1987	22,249
TOTAL TONS, 1988	23,125
TOTAL TONS, 1989	23,956
TOTAL TONS, 1990	29,167
TOTAL TONS, 1991	25,716

WASTE DISPOSED OF AT THE DELTA SOLID WASTE MANAGEMENT AUTHORITY LANDFILL	
TOTAL TONS, 1992	25,822
TOTAL TONS, 1993	23,460
TOTAL TONS, 1994	24,232
TOTAL TONS, 1995	25,913
TOTAL TONS, 1996	23,812
TOTAL TONS, 1997	23,880
CHANGE IN TONS FROM 1996-97	68
CHANGE IN PERCENT FROM 1996-97	0.3%
AVERAGE TONS PER DAY, 1986	82
AVERAGE TONS PER DAY, 1987	86
AVERAGE TONS PER DAY, 1988	89
AVERAGE TONS PER DAY, 1989	92
AVERAGE TONS PER DAY, 1990	102
AVERAGE TONS PER DAY, 1991	99
AVERAGE TONS PER DAY, 1992	99
AVERAGE TONS PER DAY, 1993	90
AVERAGE TONS PER DAY, 1994	93
AVERAGE TONS PER DAY, 1995	100
AVERAGE TONS PER DAY, 1996	92
AVERAGE TONS PER DAY, 1997	92
TYPE II LANDFILL	
ACCUMULATED TONS	241,421
TOTAL TONS, 1986	18,941
TOTAL TONS, 1987	19,227
TOTAL TONS, 1988	18,958
TOTAL TONS, 1989	19,716
TOTAL TONS, 1990	23,240
TOTAL TONS, 1991	21,137
TOTAL TONS, 1992	20,653

WASTE DISPOSED OF AT THE DELTA SOLID WASTE MANAGEMENT AUTHORITY LANDFILL	
TOTAL TONS, 1993	19,567
TOTAL TONS, 1994	19,858
TOTAL TONS, 1995	21,149
TOTAL TONS, 1996	19,509
TOTAL TONS, 1997	19,466
CHANGE IN TONS FROM 1996-97	43
CHANGE IN PERCENT FROM 1996-97	-0.22%
TYPE III LANDFILL	
ACCUMULATED TONS	46,154
TOTAL TONS, 1986	2,322
TOTAL TONS, 1987	3,022
TOTAL TONS, 1988	4,167
TOTAL TONS, 1989	4,237
TOTAL TONS, 1990	4,434
TOTAL TONS, 1991	2,801
TOTAL TONS, 1992	3,904
TOTAL TONS, 1993	3,412
TOTAL TONS, 1994	4,374
TOTAL TONS, 1995	4,763
TOTAL TONS, 1996	4,303
TOTAL TONS, 1997	4,415
CHANGE IN TONS FROM 1996-97	112
CHANGE IN PERCENT FROM 1996-97	26%
ALTERNATE DAILY COVER (PETROLEUM CONTAMINATED SOIL)	

ACCUMULATED TONS (SINCE 1992)	7,081
TOTAL TONS, 1992	2,783
TOTAL TONS, 1993	649
TOTAL TONS, 1994	2,139
TOTAL TONS, 1995	1
TOTAL TONS, 1996	0
TOTAL TONS, 1997	1,509
ALTERNATE DAILY COVER (ASH)	
TOTAL TONS, 1996	10,166
TOTAL TONS, 1997	10,176
ALTERNATE DAILY COVER (CYTEC)	
ACCUMULATED TONS	40,403
TOTAL TONS, 1993	28,351
TOTAL TONS, 1994	17,567
TOTAL TONS, 1995	2,787
TOTAL TONS, 1996	1,698
TOTAL TONS, 1997	0

TOTAL QUANTITY OF SOLID WASTE GENERATED:
103,467 Tons or ☐ Cubic Yards in year (identify unit of time)

TOTAL QUANTITY OF SOLID WASTE NEEDING DISPOSAL:
_____ ☐ Tons or ☐ Cubic Yards in _____ (identify unit of time)

DATA BASE

Solid Waste Disposal Areas for Delta County

Delta County Solid Waste Landfill is located in the North ½ of Section 22, Township 39 North, Range 23 West in the City of Escanaba. The land is leased by Delta County from the City fo Escanaba. Delta County subleases the land to the Delta Solid Waste Management Authority (Landfill Authority). The landfill serves as the disposal site for Type II and Type III wastes generated within Delta County. The facility is located on a 63.2 acre parcel, of which 8.70 acres are permitted as a landfill. With an estimated yearly disposal volume of 25,000 tons, the landfill has an estimated lifetime of 28 years.

Big Bay de Noc Transfer Station is located in the Southeast 1/4 of the Northeast ¼ of Section 16, Township 40 North, Range 18 West, Garden Township. Garden Township constructed the transfer station using funding through the Clean Michigan Fund. The transfer station accepts Type II wastes from the surrounding area. The size of the structure is 65 feet by 17 feet and contains a roll-off container, compactor pit, hopper and attendant's office and rest room. An adjacent garage houses the facility's roll-off truck. The wastes are hauled to the Delta Landfill.

Escanaba Paper Company (Mead Publishing Paper Division) operates a landfill in Sections 25 & 36, Township 40 North, Range 23 West solely for disposal of wastes generated by their operations. There are 74.5 acres permitted as a landfill with an estimated life of 65 years.

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type II and III Municipal Solid Waste Landfill

Facility Name: Delta County Landfill

County: Delta Location: Town: 39N Range: 23W Section(s): 22

Map identifying location included in Attachment Section: ☒ Yes ☐ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes:

X Public ☐ Private Owner: Delta Solid Waste Management Authority

Operating Status (check)		Waste Types Received (check all that apply)	
☒	open	☒	residential
☐	closed	☒	commercial
☒	licensed	☒	industrial
☐	unlicensed	☒	construction & demolition
☒	construction permit	☒	contaminated soils
☐	open, but closure pending	☒	special wastes *
		☐	other:

* Explanation of special wastes, including a specific list and/or conditions:

Asbestos, ash (fly & bottom)

Site Size:

Total area of facility property:	63.2	acres
Total area sited for use:	21.52	acres
Total area permitted:	8.70	acres
Operating:	2.84	acres
Not excavated:	3.60	acres
Current capacity:	861,000	☐ tons or ☒ yds^3
Estimated lifetime:	28	years
Estimated days open per year:	286	days
Estimated yearly disposal volume:	25,000	☒ tons or ☐ yds^3

(if applicable)
Annual energy production:

Landfill gas recovery projects:	____	megawatts
Waste-to-energy incinerators:	____	megawatts

FACILITY DESCRIPTIONS

Facility Type:Type III Industrial Landfill

Facility Name: Escanaba Paper Company

County: Delta Location: Town:40N Range: 23WSection(s): 25,36

Map identifying location included in Attachment Section: ☒ Yes ☐ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes:

Public X Private Owner: Escanaba Paper Company

Operating Status (check)		Waste Types Received (check all that apply)	
☒	open	☐	residential
☐	closed	☐	commercial
☒	licensed	☒	industrial
☐	unlicensed	☐	construction & demolition
☐	construction permit	☐	contaminated soils
☐	open, but closure pending	☐	special wastes *
		☒	other: asbestos waste

* Explanation of special wastes, including a specific list and/or conditions:

Site Size:

Total area of facility property:	2,060	acres
Total area sited for use:	74.5	acres
Total area permitted:	74.5	acres
Operating:	16.6	acres
Not excavated:	57.9	acres
Current capacity:	5,700,000	☐tons or ☒yds^3
Estimated lifetime:	65	years
Estimated days open per year:	365	days
Estimated yearly disposal volume:	85,000	☐tons or ☒yds^3

(if applicable)
Annual energy production:

Landfill gas recovery projects:	____	megawatts
Waste-to-energy incinerators:	____	megawatts

FACILITY DESCRIPTIONS

Facility Type: Type A Transfer Station

Facility Name: Big Bay de Noc Solid Waste

County: Delta Location: Town: 40N Range: 18W Section(s): 16 .....

Map identifying location included in Attachment Section: ☒ Yes ☐ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes: Delta Landfill

☒ Public ☐ Private Owner: Garden Township

Operating Status (check)		Waste Types Received (check all that apply)	
☒	open	☒	residential
☐	closed	☒	commercial
☒	licensed	☒	industrial
☐	unlicensed	☐	construction & demolition
☐	construction permit	☐	contaminated soils
☐	open, but closure pending	☐	special wastes *
		☐	other: .....

* Explanation of special wastes, including a specific list and/or conditions:

Site Size:

Total area of facility property:	____	acres
Total area sited for use:	____	acres
Total area permitted:	____	acres
Operating:	____	acres
Not excavated:	____	acres
Current capacity:	____	☐ tons or ☐ yds^3
Estimated lifetime:	____	years
Estimated days open per year:	____	days
Estimated yearly disposal volume:	____	☐ tons or ☐ yds^3

(if applicable)
Annual energy production:

Landfill gas recovery projects:	____	megawatts
Waste-to-energy incinerators:	____	megawatts

DATA BASE

SOLID WASTE COLLECTION SERVICES AND TRANSPORTATION INFRASTRUCTURE

The following describes the solid waste collection services and transportation infrastructure that will be utilized within the County to collect and transport solid waste.

Service Provider	Public/Private	Service Area	Payment	Disposal Facility
Big Bay de Noc Transfer Station	Public	Village of Garden Garden Township Fairbanks Twp.	Two mils on Garden Township property and per bag charge for non-township residents	Delta County Landfill
City of Escanaba	Public	City of Escanaba	City property tax Added fee	Delta County Landfill
City of Gladstone	Public	City of Gladstone	City General Fund Added fee	Delta County Landfill
Delta Disposal	Private	Delta County	Customer	Delta County Landfill
Great American Disposal	Private	Walmart and Bark River	Customer	Delta County Landfill
Nichols Disposal	Private	Delta County	Customer	Delta County Landfill
Escanaba Paper Company (Mead)	Private	Mead Paper Company	Mead Paper Company	Escanaba Paper Company Landfill

Municipal Collection Services:

The City of Escanaba provides residential and commercial collection services within the City. This service is supported financially through the general property tax and a separate utility fee. A special utility fee of $3.00 to $12.00 per month is charged to each single family home, apartment or commercial business in the city. This fee was established to help offset collection and disposal costs.

The City of Gladstone provides residential and commercial collection services within the City. A utility fee of $4.00 monthly, in combination with general property tax revenues, supports this service. The additional utility fee has been levied since August 1, 1997, to help offset increased landfill tipping fees.

The Big Bay de Noc Transfer Station located in Garden Township accepts general household (Type II) solid wastes. The transfer station is owned and operated by Garden Township. Operational costs of the transfer station are provided through a 2 mill property tax levy. Persons living outside of Garden Township may use the transfer station on a pay-per-bag basis. Solid waste collected at the facility is hauled to the Delta County Landfill for disposal.

Village of Garden provides residential and commercial collection service within its boundaries. The waste is hauled to the Big Bay de Noc Transfer Station. Operational and maintenance costs are provided through the Village property tax.

Private Collection Services:

The private collection services of Escanaba Pick-up Service and Delta Sanitation merged in August of 1997 to form Delta Disposal. Delta Disposal provides residential and commercial collection services throughout Delta County. The waste is transported to the Delta County Landfill. The service charge is based on the frequency of collection and type of container and service provided.

Great American Disposal provides collection services for commercial sites in the City of Escanaba (such as WalMart) and residential collection in the western section of Delta County. The service charge is based on the frequency of collection and type of container and service provided.

Nichols Disposal provides residential and commercial collection services. This service charge is based on frequency of collection and type of container and service provided.

Escanaba Paper Company provides for waste hauling and disposal for all solid waste generated at the facility. The costs are the responsibility of Mead Corporation.

The Delta County Landfill allows individuals to haul and dispose of waste at the current rate of $48.00 per ton. The minimum disposal fee is $5.00 for up to 230 pounds of waste.

EVALUATION OF DEFICIENCIES AND PROBLEMS

The following is a description of problems or deficiencies in the existing solid waste system.

- Increased Recycling vs. Waste to sustain operations: Based on the current tipping fee of $48.00 a ton, the Delta Landfill needs more than 2,000 tons per month to cover operations and repayment of the landfill bonds. A dramatic increase in recycling rate for the county could adversely impact the landfill finances, but at the same time recycling could prolong the air space available at the landfill. The landfill authority could experience a short term cash flow problem, but in the future would not have to construct new cells as planned. An increase in recycling efforts may result in an increase in tipping fees in the short-term, but will have long-term environmental and financial benefits.

- Flow Control: There is the concern that there is waste leaving the county in violation of the county flow control ordinance. There have been several instances of building demolition's where the waste was brought to a landfill in another county or governmental agencies allowing waste to be disposed of out of county. Delta County needs to continue to monitor and actively enforce the flow control ordinance. The County has increased the fine to $500 a day for violation, but the ordinance should be reexamined to assure that there is no financial gain to utilize an out-of county landfill. Violators of the ordinance should compensate the Landfill Authority for the difference in the out of county tipping fee and the tipping fee charged at the Delta Landfill, in addition to the $500 per day fine and/or jail time.

  Demolition permits issued by the respective jurisdictions should indicate that all demolition waste must be delivered to the Delta Landfill in conformance with the Delta County Flow Control Ordinance. As more buildings are torn down in the county, there is the chance that more waste will be transported out of county.

- Escanaba Paper Company (Mead Paper Publishing Division): Mead Paper Company has operations as well as land holdings in other counties in the Upper Peninsula. A possible scenario is the Company may have oil or barrels illegally dumped on their property which the Company needs to dispose of. For liability reasons, the Company would like to have the option of transporting wastes generated at their operations or wastes found on their own property disposed of at their own landfill located in Delta County. Flow control in Marquette County prohibits the Company from bringing these wastes into Delta County for disposal at their landfill. The present Delta County Solid Waste Plan also prohibits such waste to be brought into Delta County. The new updated county plan should recognize that these waste should be considered as industrial and be allowed to come into the county for disposal at the Mead Landfill.

- Waste Generation to Increase: An increase in waste generation amount is likely as the county population grows, which will tend to improve the landfill's revenue situation. With an expected increase in tonnage disposed at the Delta Landfill, an increase in recycling participation may not have a negative impact on the landfill's cash flow.

An increased population base in the cities may result in an increase in recyclable materials collected since the cities offer weekly pick-up service.

- Expansion of landfill service area: The Delta Landfill was originally designed to serve only Delta County. However, residents and local officials in northern Menominee County (Harris and Spalding Townships) have expressed interest in using the Delta Landfill, rather than their current system, of waste being disposed at either the Wood Island Landfill (Munising) via a transfer station or at the Menominee (Township) USA Waste landfill. There is the opportunity for the Delta Landfill to accept waste from Harris Township, Hannahville Indian Community, Spalding Township and Wells State Park. The Townships or governmental agencies should approach the Delta Solid Waste Landfill Authority first; the Landfill Authority should not actively solicit wastes from outside Delta County.

- Increase in individual hauling: As the private haulers increase their disposal fees, more residents and business may feel it is more economical to haul the wastes themselves rather than contract with a private hauler. Dumpsters or roll-off containers are available for individuals to dump their waste which is hauled to the landfill cell for final disposal. The Landfill has limited staff and accepting waste from individuals is labor intensive. The Landfill may have to consider increasing its minimum charge for small loads. The Landfill must continue to remain responsive to the desires of individuals that want to bring their own wastes for disposal.

- Recycling: The largest private hauler of wastes in the rural area of the county only offers recycling pick-up once a month. As a result, there has been a reported 20% decline in the amount of recyclable materials collected. The Recycling operations has been running at a deficit, due in part to the decline in materials available. The Landfill Authority should explore various incentives that could be extended to haulers that provide recycling services at least twice a month to their customers.

There are areas within the County where curbside recycling is not offered by private waste haulers.

To meet the needs of the public who want to recycle, but only receive monthly pick-up or no recycling service, the Recycling Center has increased the open hours of the manned drop-off site.

With recyclable and garbage reportedly being picked up and dumped in the same truck for disposal at the Delta Landfill, the Landfill Authority needs to continue monitoring the wastes coming into Delta Landfill. Appropriate action needs to be taken with waste haulers.

- Litter Control: As with all landfills, the blowing of waste is a problem. Personnel is needed to handle the problem and pick-up the blowing papers on a daily basis.

- Status of Escanaba power plant: Ash from the Escanaba power plant is used as daily cover at the landfill. The Landfill Authority has a contract with the City of Escanaba in which the city

pays a reduced fee for the amount of ash that is used as daily cover; at present, the Landfill Authority receives money for its daily cover. If and when the power plant closes, the Landfill Authority will have to pay for its daily cover.

Due to better utilization and more efficient management of operations, there is less ash being generated than in previous years. The Landfill Authority will need to purchase sand for daily cover.

- Contingency Disposal Agreements: Now that the Delta Landfill has secured its operating permit from the DEQ, the Landfill Authority should proceed with negotiations with landfills in surrounding counties, especially Marquette, Alger and Menominee Counties, for a contingency/reciprocal use agreements in case a problem develops with the landfill in the future.

The Landfill Authority should have discussions with Mead Paper Company on the use of their landfill for a short-term basis in the case of an immediate emergency. The agreement may be reciprocal to provide Mead Paper Company a disposal facility they could utilize on a short-term basis for an immediate emergency. Since the Escanaba Paper landfill is a Type III landfill, it would be restricted to the Type III waste being disposed a the Delta County Landfill, and not the Type II waste being disposed at the Delta County Landfill. The Escanaba Paper Landfill's operating license may further restrict the kind of Type III waste that can be accepted at this landfill. The language of a reciprocal agreement would specify what type of waste can be disposed at the respective landfills.

- Leachate Line at the landfill: The leachate line from the landfill to the Escanaba city sewer system needs to be upgraded from a two inch line to a four inch line to clean and maintain. The City of Escanaba realizes that an eight inch sewer line would be beneficial in order to provide sewer services to any business or industry that may want to locate along 19th Avenue North. Cost for the increase in the size of the line could be proportionally shared between the Landfill Authority and the City.

- Illegal Dumping: As the rates for waste disposal increase, there is the problem of people disposing waste illegally in the woods on public and private lands.

- Ongoing Recycling Education: For the voluntary recycling program to be effective, an ongoing public education program is needed. Brochures could be distributed to the public at the landfills and regular advertising of the program.

DATA BASE

DEMOGRAPHICS

The following presents the current and projected population densities and centers for five and ten year periods, identification of current and projected centers of solid waste generation including industrial solid waste for five and ten year periods as related to the Selected Solid Waste Management System for the next five and ten year periods. Solid waste generation data is expressed in tons or cubic yards, and if it was extrapolated from yearly data, then it was calculated by using 365 days per year, or another number of days as indicated.

With a 1990 population of 37,780 persons and a land area of 1,170.2 square miles, Delta County's population density is 32.3 persons per square mile. The highest population density in the County occurs in the Cities of Escanaba and Gladstone. Using the projected population figures for the next five and ten year periods, the population density in Delta County will increase 33.2 and 33.4 persons per square mile by 2005 and 2010, respectively.

The areas with the highest density, the Cities of Escanaba and Gladstone, are home to nearly half of the population of Delta County at 48.3%. Along with Wells Township and Escanaba Township, the Cities of Escanaba and Gladstone will continue to be the population centers in Delta County for the next five and ten year periods.

The current centers of solid waste generation are centered in and around the urban center of Escanaba-Gladstone-Rapid River. This area includes the two cities and the Townships of Brampton, Escanaba, Ford River, Wells, Masonville and Bark River. Using current County solid waste generation tonnage of 39,323.77 the per capita solid waste generation at the Delta County Landfill is 5.5 pounds per person per day. It is expected that these areas will continue to be the centers of solid waste generation for the next five and ten-year periods. Due to the concentration of commercial occupancies in the cities and residential occupancies in the surrounding areas, solid waste generation currently is and will continue to be centralized in these areas. The majority of the County's industrial uses will also continue to be located in this area, taking advantage of the access to highway, water, rail and air transportation.

Population Density Projections (Persons Per Square Mile)				
County	1990 Census	2000	2005	2010
Delta County	32.3	33.2	33.2	33.4

Source: Michigan Department of Management and Budget
Office of the State Demographer 1996

POPULATION TRENDS

Area	1990 Census	1996
Delta County	37,780	39,047
Baldwin Township	726	778
Bark River Township	1,548	1,657
Bay de Noc Township	320	343
Brampton Township	1,138	1,219
Cornell Township	529	567
Ensign Township	669	716
City of Escanaba	13,659	13,556
Escanaba Township	3,340	3,574
Fairbanks Township	309	331
Ford River Township	2,002	2,145
Village of Garden	268	284
Garden Township	515	552
City of Gladstone	4,569	4,594
Maple Ridge Township	829	888
Masonville Township	1,709	1,790
Nahma Township	491	526
Wells Township	5,159	5,527

Source: Bureau of the Census, U.S. Department of Commerce, November 1997

POPULATION PROJECTIONS

County	1990	1990	2005	2010
Delta	37,780	38,600	38,900	39,065

Source: Michigan Department of Management and Budget
Office of the State Demographer 1996

POPULATION CENTERS 1990-2005

TOWNSHIP OR MUNICIPALITY	% OF COUNTY POPULATION	1990 CENSUS	1996	2000	2005	2010
City of Escanaba	36.2	13,659	13556	13,624	13,665	14,142
City of Gladstone	12.1	4,569	4,594	4,617	4,631	4,727
Escanaba Township	8.8	3,340	3,430	3,447	3,457	3,439
Wells Township	13.7	5,159	5,527	5,555	5,572	5,352

Source: Michigan Department of Management and Budget
Office of the State Demographer 1996

DATA BASE

LAND DEVELOPMENT

The following describes current and projected land development patterns, as related to the Selected Solid Waste Management System, for the next five and ten year periods.

Residential Uses:

The Lake Bluff and Danforth/Soo Hill in Escanaba Township are the locations where much active residential development is taking place. As the subdivisions in the Soo Hill area are filled, development pressures will shift elsewhere in the County if additional lots are not platted in the area. The residential development on Lake Bluff continues into the City of Gladstone and along M-35 in the City of Gladstone.

Waterfront development has occurred throughout the County in recent years. The western shore of the Stonington Peninsula, across Little Bay de Noc from the Escanaba-Gladstone urban center, has experienced a recent influx of development, both in new seasonal dwelling, older seasonal dwellings converted to year-round residences, and new year-round homes constructed. Areas such as Garth Point and Maywood Shores are extensively developed, with much of this development consisting of year-round homes. As the distance from the urban center increases toward the southern reaches of the peninsula, a higher percentage of the development is seasonal in nature.

Commercial Use:

As with residential development, the highest concentration of commercial land use is located within the Escanaba-Gladstone urban center. The trend in commercial development in the urban center has been towards increased development along north Lincoln Road (U.S.2/41 and M-35) into Wells Township and along U.S. 2 and 41 north to Danforth Road in the City of Escanaba.

Some "strip" commercial development has occurred along major highways in the County, consisting primarily of restaurants, gas stations and a few businesses that require large lots, such as junkyards and car dealerships. This type of commercial development is most common along U.S. 2/41 west of Escanaba, and along U.S. 2 near Rapid River.

Industrial Use:

Sites for industrial development are primarily located in the Escanaba-Gladstone urban center, and include Red Pines Industrial Park, Gladstone Industrial Park, North Bluff Industrial Park, and a variety of industrially-zoned land and buildings. Outside the urban center, opportunities for large -scale industrial development are limited by the availability of transportation facilities and municipal services, such as sewer and water.

Projected Land Development Patterns:

The overall land use trend in Delta County appears to be towards expanding residential and commercial development in the Escanaba-Gladstone urban center, and increased residential development of waterfront property. Future land development projections involve decreasing farm acreage. Residential, commercial and industrial development will continue to be concentrated in the southern portion of the County, along major highway corridors.

Circumstances such as federally and state owned land, natural barriers, and environmental conditions, may prevent future land development in some areas of Delta County.

The federal government is a significant landowner in Delta County with 241,640 acres of the Hiawatha National Forest located in the County. This large amount of public land affects land use patterns due to the fact that a significant portion of the County is unavailable for private residential, commercial or industrial development. The State is also a major landowner, with about 68,000 acres of state land in the County. Most of this land is included in the Lake Superior State Forest; the Escanaba River State Forest also includes some areas in the County.

Natural features influence land use and development by serving as barriers or by providing suitable sites and natural transportation corridors. In the case of Delta County, Lake Michigan provides a natural barrier to the expansion of communities such as Escanaba and Gladstone, which means that if these communities are to grow, they can grow only in certain directions. Major rivers also provide barriers when only limited river crossings are available. For example, there is only one bridge over the Escanaba River in the Escanaba-Gladstone urban area, which funnels a large amount of traffic onto one highway corridor.

Environmental constraints, including wetlands, shallow depths to bedrock and impermeable soils influence land use by limiting the density of development, or precluding certain types of development. Along with these environmental constraints, environmental contamination may limit future land development. Leaking underground fuel storage tanks have become a concern throughout the country in recent years, and Delta County is no exception. Many fuel tanks, which were in compliance with all installation guidelines at the time they were installed, have deteriorated and allowed fuel to contaminate the surrounding soil. In addition to affecting existing development, contamination in these areas limits the amount and intensity of new development. New guidelines for installing underground fuel tanks have been implemented, and efforts are underway to identify and clean up leaking tanks.

DATA BASE

SOLID WASTE MANAGEMENT ALTERNATIVES The following briefly describes all solid waste management systems considered by the County and how each alternative will meet the needs of the County. The manner of evaluation and ranking of each alternative is also described. Details regarding the Selected Alternatives are located in the following section. Details regarding each non-selected alternative are located in Appendix B.

There are a number of alternatives which have been considered regarding management of solid wastes in Delta County:

Alternative #1:

- Cease county landfill operations: The Delta Landfill would cease operations and existing landfill cells would be closed. All waste would be shipped to a landfill out of county. The waste could be processed and hauled by either the Landfill Authority by its own employees or under contract with a private firm to an out-of county landfill for disposal. The cost for such an arrangement is estimated to be $58.50 per ton. Closure and past-closure costs would exceed $20 million.

Waste generated by Mead Paper Company (Escanaba Paper Company) would continue to be disposed of at their site. The shipment of the industrial waste from the paper company to an out-of-county site would have a dramatic negative impact on their operations.

Alternative #2:

- Waste Incineration: All wastes collected in the county would be incinerated for generating electricity. Waste materials that cannot be reduced, reused, or recycled would be separated into combustible and non-combustible materials. The only materials requiring landfilling would be incinerator ash and on-combustibles such as concrete rubble.

nationally, about 14 percent of municipal solid waste is incinerated which indicates it is still a viable option in some areas. In Michigan, however, due largely to increased regulation of air emissions, the popularity of incineration has declined and the cost of operation risen.

Challenges facing an incineration alternative include locating a market for the energy produced, complying with air emission standards, and existing financial commitments to the landfill.

Based on previous plans and studies, it was determined there was not enough waste generated in Delta county to consider it feasible.

The primary benefit is the preservation of landfill space through a significant reduction in the amount of material being disposed Secondary benefits area: availability of an alternate fuel for energy production and greater attention to recycling.

Alternative #3:

- Organic waste conversion: Waste would be converted to a pellet that would be burned as

fuel. A company had proposed to have such a facility constructed in the county, but trainloads of wastes from the Upper Peninsula and Northeastern Wisconsin would be needed in order to have a sufficient supply of waste. There was considerable public opposition to the plan when first presented.

Alternative #4:

- Continue landfilling operations at the Delta Landfill: The Delta Landfill Authority has recently completed reconstruction of two cells at the Type II landfill with a double composite liner. As a result of the reconstruction work, the Delta Landfill is anticipated to have 28 years of capacity, based on current waste volumes.

- Continue with compacting waste at landfill: The Landfill Authority has switched from baling waste for delivery/placement at the landfill to compacting waste at the landfill. Delivery of wastes directly to the landfill cell by the hauler has resulted in a decrease in transportation costs for the Landfill Authority as well as the compacting of the wastes has resulted in consuming less air space for waste disposal. Compacting of waste has resulted in cost savings of about $70,000 per year over the previous methods of baling.

Optional Alternatives:

These "optional alternatives" can be used in conjunction with any or all of the listed alternatives above.

- Mandatory recycling: The County Board of Commissioners has adopted a policy of encouraging recycling and the Landfill Authority has adopted a policy of non-acceptance of recyclable materials at the landfill. The County recycling program is now basically a voluntary program, with emphasis on public education. A mandatory recycling ordinance would entail stricter enforcement of the situation. The local governmental units would have to concur with development of a mandatory recycling ordinance; when such an idea was first proposed when the Clean Michigan Community project began many local units and residents were vehemently opposed to it.

- Privatization of waste collection: Waste collection is handled by private firms in the out county area; the cities of Escanaba and Gladstone, Village of Garden and Garden Township operate municipal systems. The local units could either contract with a private firm or simply discontinue their systems and allow the private sector to take over. There may need to be some control or licensing arrangements to make certain that all wastes collected in the areas are picked up.

- Continue with current collection techniques: Waste collection at residential and commercial within the cites of Escanaba and Gladstone and Village of Garden would continue to be the responsibility of the respective local units. The Big Bay de Noc transfer station would remain under the control of Garden Township. Private haulers would continue to operate throughout the county contracting with residents, businesses and industry for the collection of wastes and disposal at the landfill in Delta County.

- Increase Voluntary Recycling Participation: The current recycling/composting program in the county offers residents and businesses the opportunity to recycle materials and yard waste. Curbside pick-up and drop-off of materials are available.

There are some outlying areas in the county which do not receive curbside recycling service. Efforts need to be explored to expand the service, through encouraging private haulers to provide the service or the Landfill Authority provide the service.

To increase participation by those who do not have regular garbage pick-up service, monthly recycling pick-up or no recycling pick-up, the manned center is open until 6 p.m. weekdays and Saturday mornings.

Staff at the Delta Landfill should be given the authority to issue warnings/notices of violation of the Authority's recyclable material policy and if there are repeated instances of violations to reject the load.

THE SELECTED SOLID WASTE

MANAGEMENT SYSTEM

The Selected Solid Waste Management System (Selected System) is a comprehensive approach to managing the County's solid waste and recoverable materials. The Selected System addresses the generation, transfer and disposal of the County's solid waste. It aims to reduce the amount of solid waste sent for final disposal by volume reduction techniques and by various resource conservation and resource recovery programs. It also addresses collection processes and transportation needs that provide the most cost effective, efficient service. Proposed disposal areas locations and capacity to accept solid waste are identified as well as program management, funding, and enforcement roles for local agencies. Detailed information on recycling programs, evaluation, and coordination of the Selected System is included in Appendix B. Following is an overall description of the Selected System:

- Continue Landfilling Operations at the Delta Landfill: The Delta Solid Waste Management Authority (Landfill Authority) has recently completed reconstruction at the Delta Landfill of two cells with a double composite liner. As a result of the reconstruction work, the landfill is anticipated to have 28 years of capacity. With the exception of Mead Corporation, all solid waste generated in Delta County would be disposed of at the Delta Landfill.

- Continue with Compacting Waste at Landfill: The Landfill Authority has switched from baling waste for delivery/placement at the landfill to compacting waste at the landfill. Delivery of wastes to the landfill cell by the hauler has resulted in a decrease in transportation costs for the Landfill Authority. Compaction of the wastes has resulted in consuming less air space for waste disposal.

- Continue with current collection techniques: Waste collection at residential and commercial within the cities of Escanaba and Gladstone and Village of Garden would continue to be the responsibility of the respective local units. The Big Bay de Noc transfer station would remain under the control of Garden Township. Private haulers would continue to operate throughout the county.

- Increase Voluntary Recycling Participation: The current recycling/composting program in the county offers residents and businesses the opportunity to recycle materials and yard waste. The program, under the auspices of the Landfill Authority, relies on the cooperation of the general public, government entities and private haulers. Curbside pick-up and drop-off of materials are available.

There are some outlying areas in the county which do not receive curbside recycling service. Efforts need to be explored to expand the service, through encouraging private haulers to provide the service or the Landfill Authority providing the service.

The manned recycling center has expanded hours.

- Hazardous Waste Collection Program: As a result of the Consent Agreement with the DEQ, the Landfill Authority will has instituted a Household Hazardous Waste Collection program, in addition to being a depository for pesticides collected from throughout the UP. Through a State grant from the Michigan Department of Agriculture, the Delta Solid Waste Management Authority has become the central deposit point for unneeded pesticides from throughout the Upper Peninsula. Program collection and disposal costs are reimbursable; administrative costs are the responsibility of the Authority.

- Escanaba Paper Company (Mead Paper Publishing Division): Waste generated as a result of Mead's operations in Delta county would be landfilled at their own landfill facility. All costs would be the company's responsibility.

- Enforcement and Local Ordinance/Resolutions: The county solid waste flow control ordinance will remain in effect to assure that residential and commercial waste generated in the county (with the exception of waste generated by Escanaba Paper Company) is disposed of at the Delta Landfill. Local units will be allowed the opportunity to implement rules and regulations regarding the collection and funding of programs within their respective jurisdiction.

IMPORT AUTHORIZATION

If a Licensed solid waste disposal area is currently operating within the County, disposal of solid waste generated by the EXPORTING COUNTY is authorized by the IMPORTING COUNTY up to the AUTHORIZED QUANTITY according to the CONDITIONS AUTHORIZED in Table 1-A. Authorized conditions for import are found on Pages D-6 and D-7.

Table 1-A

CURRENT IMPORT VOLUME AUTHORIZATION OF SOLID WASTE

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS
Delta	Menominee			100%	*
Delta	Alger			100%	*
Detla	Baraga			100%	*
Delta	Chippewa			100%	*
Delta	Dickinson			100%	*
Delta	Gogebic			100%	*
Delta	Houghton			100%	*

Table 1-A

CURRENT IMPORT VOLUME AUTHORIZATION OF SOLID WASTE

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS
Delta	Iron			100%	*
Delta	Keewenaw			100%	*
Delta	Luce			100%	*
Delta	Marquette			100%	*
Delta	Mackinac			100%	*
Delta	Ontonagon			100%	*
Delta	Schoolcraft			100%	*

If a new solid waste disposal area is constructed and operating in the future in the County, then disposal of solid waste generated by the EXPORTING COUNTY is authorized by the IMPORTING COUNTY up to the AUTHORIZED QUANTITY according to the AUTHORIZED CONDITIONS in Table 1-B.

Table 1-B
FUTURE IMPORT VOLUME AUTHORIZATION OF SOLID WASTE
CONTINGENT ON NEW FACILITIES BEING SITED

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME[1]	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS[2]
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

☐ Additional authorizations and the above information for those authorizations are listed on an attached page.

---

[1] Facilities are only listed if the exporting county is restricted to using specific facilities within the importing county.

[2] Authorization indicated by P = Primary Disposal; C = Contingency Disposal; * = Other conditions exist and detailed explanation is included in the Attachment Section.

EXPORT AUTHORIZATION

If a Licensed solid waste disposal area is currently operating within another County, disposal of solid waste generated by the EXPORTING COUNTY is authorized up to the AUTHORIZED QUANTITY according to the CONDITIONS AUTHORIZED in Table 2-A if authorized for import in the approved Solid Waste Management Plan of the receiving County. Authorized conditions for export are found on pages D-6 and D-7.

Table 2-A

CURRENT EXPORT VOLUME AUTHORIZATION OF SOLID WASTE

EXPORTING COUNTY	IMPORTING COUNTY	FACILITY NAME[1]	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS[2]
Delta	Alger	____	____	100%	*
Delta	Houghton	____	____	100%	*
Delta	Menominee	____	____	100%	*
Delta	Ontonagon	____	____	100%	*
Delta	Chippewa	____	____	100%	*
Delta	Baraga			100%	*
Delta	Dickinson			100%	*
Delta	Gogebic			100%	*
Delta	Iron			100%	*
Delta	Keewenaw			100%	*
Delta	Luce			100%	*
Delta	Marquette			100%	*
Delta	Mackinac			100%	*
Delta	Schoolcraft			100%	*

[1] Facilities are only listed if the exporting county is restricted to using specific facilities within the importing county.

[2] Authorization indicated by P = Primary Disposal; C = Contingency Disposal; * = Other conditions exist and detailed explanation is included in the Attachment Section.

If a new solid waste disposal area is constructed and operates in the future in another County, then disposal of solid waste generated by the EXPORTING COUNTY is authorized up to the AUTHORIZED QUANTITY according to the AUTHORIZED CONDITIONS in Table 2-B if authorized for import in the approved Solid Waste Management Plan of the receiving County.

Table 2-B

FUTURE EXPORT VOLUME AUTHORIZATION OF SOLID WASTE
CONTINGENT ON NEW FACILITIES BEING SITED

EXPORTING COUNTY	IMPORTING COUNTY	FACILITY NAME[1]	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS[2]
____	____	____	____	____	____
____	____	____	____	____	____
____	____	____	____	____	____
____	____	____	____	____	____

[1] Facilities are only listed if the exporting county is restricted to using specific facilities within the importing county.

[2] Authorization indicated by P = Primary Disposal; C = Contingency Disposal; * = Other conditions exist and detailed explanation is included in the Attachment Section.

SELECTED SYSTEM
SELECTED SYSTEM

The following identifies the names of existing disposal areas which will be utilized to provide the required capacity and management needs for the solid waste generated within the County for the next five years and, if possible, the next ten years. The following three pages contain descriptions of the solid waste disposal facilities which are located within the County and the disposal facilities located outside of the County which will be utilized by the County for the planning period. Additional facilities within the County with applicable permits and licenses may be utilized as they are sited by this Plan, or amended into this Plan, and become available for disposal. If this Plan update is amended to identify additional facilities in other counties outside the County, those facilities may only be used if such import is authorized in the receiving County's Plan. Facilities outside of Michigan may also be used if legally available for such use.

Type II Landfill:
Delta County Landfill

Type A Transfer Facility:
Big Bay de Noc

Type B Transfer Facility:

Type III Landfill:
Delta County Landfill

Processing Plant:

Escanaba Paper Company

Incinerator:

Waste Piles:

-

Waste-to-Energy Incinerator:

Other:

Additional facilities are listed on an attached page. Letters from or agreements with the listed disposal areas owners/operators stating their facility capacity and willingness to accept the County's solid waste are in the Attachments]Section.

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type II & III Municipal Solid Waste Landfill
Facility Name: Delta County Landfill
County: Delta Location: Town: 39N Range: 23W Section(s): 22

Map identifying location included in Attachment Section: ☒ Yes ☐ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes :

X Public ☐ Private Owner: Delta Solid Waste Management Authority

Operating Status (check)		Waste Types Received (check all that apply)	
☒	open	☒	residential
☐	closed	☒	commercial
☒	licensed	☒	industrial
☐	unlicensed	☒	construction & demolition
☒	construction permit	☒	contaminated soils
☐	open, but closure	☒	special wastes *
☐	pending	☐	other: _

* Explanation of special wastes, including a specific list and/or conditions:

_Asbestos, Ash (fly & bottom)

Site Size:

Total area of facility property:	63.2	acres
Total area sited for use:	21.52	acres
Total area permitted:	8.70	acres
Operating:	2.84	acres
Not excavated:	3.60	acres
Current capacity:	861,000	☐ tons or ☒ yds^3
Estimated lifetime:	28	years
Estimated days open per year:	286	days
Estimated yearly disposal volume:	25,000	☒ tons or ☐ yds^3

(if applicable)
Annual energy production:

Landfill gas recovery projects:	____	megawatts
Waste-to-energy incinerators:	____	megawatts

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type III Industrial Landfill
Facility Name: Escanaba Paper Company

County: Delta Location: Town: 40N Range: 23W Section(s): 25,36

Map identifying location included in Attachment Section: ☒ Yes ☐ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes :
☐ Public x Private Owner: Escanaba Paper Company

Operating Status (check)		Waste Types Received (check all that apply)	
☒	open	☐	residential
☐	closed	☐	commercial
☒	licensed	☒	industrial
☐	unlicensed	☐	construction & demolition
☐	construction permit	☐	contaminated soils
☐	open, but closure	☐	special wastes *
☐	pending	☒	other: _

* Explanation of special wastes, including a specific list and/or conditions:
asbestos waste

Site Size:

Total area of facility property:	2,060	acres
Total area sited for use:	74.5	acres
Total area permitted:	74.5	acres
Operating:	16.6	acres
Not excavated:	57.9	acres
Current capacity:	5,700,000	☐ tons or ☒ yds^3
Estimated lifetime:	65	years
Estimated days open per year:	365	days
Estimated yearly disposal volume:	85,000	☐ tons or ☒ yds^3

(if applicable)
Annual energy production:

Landfill gas recovery projects:	0	megawatts
Waste-to-energy incinerators:	0	megawatts

SELECTED SYSTEM

FACILITY DESCRIPTIONS

Facility Type: Type A Transfer Station
Facility Name: Big Bay de Noc Solid Waste

County: Delta Location: Town: 40N Range: 18W Section(s): 16

Map identifying location included in Attachment Section: ☒ Yes ☐ No

If facility is an Incinerator or a Transfer Station, list the final disposal site and location for Incinerator ash or Transfer Station wastes : Delta Landfill

☒ Public ☐ Private Owner: Garden Township

Operating Status (check)		Waste Types Received (check all that apply)	
☒	open	☒	residential
☐	closed	☒	commercial
☒	licensed	☐	industrial
☐	unlicensed	☐	construction & demolition
☐	construction permit	☐	contaminated soils
☐	open, but closure	☐	special wastes *
☐	pending	☐	other: _

* Explanation of special wastes, including a specific list and/or conditions:

Site Size:

Total area of facility property:	____	acres
Total area sited for use:	____	acres
Total area permitted:	____	acres
Operating:	____	acres
Not excavated:	____	acres
Current capacity:	____	☐ tons or ☐ yds^3
Estimated lifetime:	____	years
Estimated days open per year:	____	days
Estimated yearly disposal volume:	____	☐ tons or ☐ yds^3

(if applicable)
Annual energy production:

Landfill gas recovery projects:	____	megawatts
Waste-to-energy incinerators:	____	megawatts

SOLID WASTE COLLECTION SERVICES AND TRANSPORTATION:

The following describes the solid waste collection services and transportation infrastructure which will be utilized within the County to collect and transport solid waste.

The City of Escanaba and City of Gladstone and Village of Garden will provide municipal waste collection service to city residents either through municipal collection service or through arrangements with private haulers.

Waste would continue to be collected at the Big Bay de Noc Transfer Station with the waste hauled to the county landfill.

Private haulers would continue to provide waste collection services to residential and commercial/industrial establishments. All waste collected would be disposed of accordance with the County's adopted flow control ordinance.

Service Provider	Public/Private	Service Area	Payment	Disposal Facility
City of Escanaba	Public	City of Escanaba	City General Fund & Utility Bill (Water Bill)	Delta County Landfill
City of Gladstone	Public	City of Gladstone	City General Fund & Added Fee	Delta County Landfill
Delta Disposal	Private	Delta County	Customer	Delta County Landfill
Great American Disposal	Private	WalMart & Eastern Delta Co.	Customer	Delta County Landfill
Nichols Disposal	Private	Delta County	Customer	Delta County Landfill
Escanaba Paper Company	Private	Escanaba Paper Company	Escanaba Paper Company	Escanaba Paper Company
Village of Garden	Public	Village of Garden	Property Tax	Delta County Landfill
Big Bay de Noc Transfer Station	Public	Garden Peninsula	Millage & Customer	Delta County Landfill

RESOURCE CONSERVATION EFFORTS:

The following describes the selected system's proposed conservation efforts to reduce the amount of solid waste generated throughout the County. The annual amount of solid waste currently or proposed to be diverted from landfills and incinerators is estimated for each effort to be used, if possible. Since conservation efforts are provided voluntarily and change with technologies and public awareness, it is not this Plan update's intention to limit the efforts to only what is listed. Instead citizens, businesses, and industries are encouraged to explore the options available to their lifestyles, practices, and processes which will reduce the amount of materials requiring disposal.

Effort Description	Est. Diversion Tons/Yr		
	Current	5th yr	10th yr
Source Reduction	555	567	578

☐ Additional efforts and the above information for those efforts are listed on an attached page.

Source reduction is gaining more attention as an important solid waste management option. Often called "waste prevention", source reduction is defined by EPA as "any change in the design, manufacturing, purchase, or use of materials or products to reduce the amount or toxicity before they become municipal solid waste. Prevention also refers to the reuse of products or materials." The idea behind source reduction is simple: the best and most cost effective way to reduce waste is to not make it. By reducing and eliminating waste generation, the total solid waste load can be decreased 3 to 5 percent. This reduction in solid waste is beneficial both economically and environmentally. As waste disposal costs escalate, reduction of generated waste may yield significant savings. Disposal and raw material costs will decrease, and the workplace may become cleaner and safer. Reduction of hazardous materials can also reduce long-term liability costs. As indicated, source reduction can benefit both business and the environment.

- Some examples of source reduction involve everyday grocery shopping. Buying food in bulk and using household reusable containers is an excellent waste prevention alternative. This method eliminates some packaging wastes that may otherwise be added to the solid waste stream. Another example involves grocery sacks. Reusing grocery sacks is helpful, especially if it's a cloth bag that can be used many times. Instead of recycling the grocery bags, the bag should just be reused if it is going back

to the store anyway. Another grocery item, a plastic milk jug, is an item that could be reused instead of recycled. Reusing the plastic milk jug keeps the item out of the waste stream while providing a convenient container.

- Junk mail proves to be an item that can be limited by source reduction. The production of junk mail can be limited by writing or calling companies and organizations directly and asking them to remove your name from mailing lists.

- Unnecessary clean-up materials can be eliminated by source reduction. A rag or washcloth can be washed many times before it needs to be replaced. A rag is even derived from a previously used item. A sponge is the next best option. A sponge is good because it is a multi-use item, but used sponges are thrown out when they become worn. Paper towels are the most wasteful alternative because they are single-use items. Paper towels made from recycled paper should be used whenever possible.

- Using cloth products, such as cloth diapers and napkins, eliminates a great deal of waste. Disposable diapers now make up approximately 2% of our country's municipal solid waste streams and their production may be energy-intensive. Using cloth diapers prevents the disposable diaper from entering the waste stream. Cloth napkins can be washed and reused dozens or even hundreds of times. Paper napkins are only used once and are thrown out. A compromise approach when paper napkins are a must would be to purchase recycled paper napkins.

SELECTED SYSTEM

WASTE REDUCTION, RECYCLING, & COMPOSTING PROGRAMS:

Volume Reduction Techniques

The following describes the techniques utilized and proposed to be used throughout the County which reduces the volume of solid waste requiring disposal. The annual amount of landfill air space not used as a result of each of these techniques is estimated. Since volume reduction is practiced voluntarily and because technologies change and equipment may need replacing, it is not this Plan update's intention to limit the techniques to only what is listed. Persons within the County are encouraged to utilize the technique that provides the most efficient and practical volume reduction for their needs. Documentation explaining achievements of implemented programs or expected results of proposed programs is attached.

Technique Description	Est. Air Space Conserved Yds^3/Yr		
	Current	5th yr	10th yr
Recycling - Delta Recycling Program	19,000	19,380	19,700
Composting - Municipal System	11,000	11,200	11,400
Waste Compaction at County Landfill	1,200	1,220	1,240
Backyard Composting	11,800	12,000	12,200
Household Hazardous Waste Extraction	4,000	4,080	4,160

☐ Additional efforts and the above information for those efforts are listed on an attached page.

In July, 1997 waste disposal operations at the Delta County Landfill were changed from a baling operation to a loose-waste disposal operation.

In the loose-waste disposal operation, packer trucks or trailers bring the loose waste into the landfill cell and dump it near the working face. The operator performs the required load inspection in the cell. The waste is pushed up the working face in thin lifts where it is compacted with a landfill compactor. The landfill compactor is an extremely heavy (+70,000 pounds) machine with steel wheels designed to shred the waste as it is compacted. A series of passes are made over the waste to achieve the maximum density. At the end of the day, the landfill compactor is used to spread 6-inches of daily cover over the entire working face to control loose papers, debris, odors and other vectors. The loose-waste disposal operation typically produces a density in the range of 1,200 to 1,300 pounds per cubic yard, as compared to 1,000 pounds per cubic yard for a baling operation.

SELECTED SYSTEM

The conversion form baling to loose-waste disposal operations has decreased the overall operating expenses, energy consumption and increased the refuse density approximately 20 to 25 percent. By increasing the density, the landfill life is extended.

Overview of Resource Recovery Programs:

The following describes the type and volume of material in the County's waste stream that may be available for recycling or composting programs. How conditions in the County affect or may affect a recycling or composting program and potential benefits derived from these programs is also discussed. Impediments to recycling or composting programs which exist or which may exist in the future are listed, followed by a discussion regarding reducing or eliminating such impediments.

☒ Recycling programs within the County are feasible. Details of existing and planned programs
are included on the following pages.

☐ Recycling programs for the County have been evaluated and it has been determined that it is
not feasible to conduct any programs because of the following:

Recycling:

Delta County currently has a comprehensive recycling and composting program which began through a Clean Michigan Community grant provided by the Delta Solid Waste Management Authority. Since the first truckload of recyclable was delivered to the recycling center on September 28, 1992, residents in the county have participated in the voluntary recycling program.

According to the Clean Michigan Community Report, the following are the types and volumes of materials that are potentially available in the county waste stream for recycling:

MATERIAL	PROJECTED QUANTITY AVAILABLE FOR RECYCLING (Tons)
Paper Products	1,173
Glass	518
Plastic #1 and #2	84
Old Magazines	96
Old Corrugated Cardboard	765
Tin	140
Aluminum	13
Textiles	100
Appliances	75
Total	2,964

SELECTED SYSTEM

According to the Clean Michigan Community, the following are compost material recovery estimates:

Material	Amount
Leaves	1,337 tons
Grass Clippings	855 tons
Brush	630 tons
Total	2,922 tons

There are several issues and opportunities associated with the present system:

- Through the diligent marketing efforts of Lakestate Industries, end markets are continually being identified for the materials collected. All of the materials collected as part of the Delta County recycling program are eventually shipped to a broker or an end user.

- The largest private hauler of wastes in the rural area of the county only offers recycling pick-up once a month. As a result, there has been a 20% decline in the amount of recyclable materials collected. The Recycling operations has been running at a deficit, in part to the decline in materials available. The Landfill Authority should explore various incentives that could be extended to haulers to encourage that recycling services are provided at least twice a month.

- There are areas within the County where curbside recycling is not offered by private waste haulers. Efforts need to be explored to expand the service area, through encouraging private haulers to provide the service or the Landfill Authority provide the service.

- With recyclable and garbage being picked up and dumped in the same load at the Delta Landfill, the Landfill Authority needs to continue monitoring the wastes coming into Delta Landfill. Appropriate action needs to be taken with waste haulers.

- Currently, the manned Recycling Drop-off Center is open weekdays and Saturday morning. Expanded hours were made to accommodate participation by those who do not have regular garbage pick-up service, monthly recycling pick-up or no recycling pick-up. An increase in hours at the drop-off site could result in increased operational costs.

- There are instances when non-recyclable items have been picked up by waste haulers and brought to the Recycling Center. The garbage has to be sorted out and hauled to the landfill for disposal. The Landfill Authority and Lakestates should regularly explain to waste haulers which them items are accepted and which items should be disposed of at the landfill.

- Education and public awareness of the program need to remain a top priority. The Landfill Authority, along with Lakestate Industries, needs to continually monitor the public education program. There are a number of ways to promote the program:

  Similar to the TV6 Weather Buddy drawings, grade school youngsters would submit

drawings promoting recycling to be shown on local television stations or local cable TV access channel.

Efforts to promote the Hazardous Waste Collection Program should tie in with the county recycling program.

Advertisements explaining what items can be recycled should continue to be published in the local newspaper. Awareness of the program has increased public participation in the program.

☒ Composting programs within the County are feasible. Details of existing and planned programs are included on the following pages.

☐ Composting programs for the County have been evaluated and it has been determined that it is not feasible to conduct any programs because of the following:

- - - - -

☒ Programs for source separation of potentially hazardous materials are feasible and details are included on the following pages.

As part of the Consent Agreement with the DEQ, the Delta Solid Waste Management Authority has agreed to fund a Supplemental Environmental Program. The Authority has implemented a Household Hazardous Waste Collection Program. The collection site at the Delta Landfill is operated by landfill employees. It is estimated that 200 tons of materials will be diverted from the waste stream yearly.

The Delta Landfill is host to the Upper Peninsula Pesticide Waste Collection Program. The program is the only state-funded pesticide disposal site located in the Upper Peninsula. It is a cooperative effort between the Michigan Department of Agriculture, the Delta solid Waste management Authority and the U.S. Environmental Protection Agency (EPA). Delta County and Upper Peninsula resident are invited to dispose of unused and unwanted pesticides by taking them to the site, where they will be collected and packaged for shipping to an appropriate disposal site. There is no charge for this service. Certain guidelines must be followed for the safe transport of the hazardous wastes to the Delta County Landfill and drop-off occurs by appointment only.

☐ Separation of potentially hazardous materials from the County's waste stream has been evaluated

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RECYCLING AND COMPOSTING

The following is a brief analysis of the recycling and composting programs selected for the County in this Plan. Additional information on operation of recycling and composting programs is included in Appendix A. The analysis covers various factors within the County and the impacts of these factors on recycling and composting. Following the written analysis the tables on pages III-18, 19, & 20 list the existing recycling, composting, and source separation of hazardous materials programs that are currently active in the County and which will be continued as part of this Plan. The second group of three tables on pages III-21, 22, & 23 list the recycling, composting, and source separation of hazardous materials programs that are proposed in the future for the County. It is not this Plan update's intent to prohibit additional programs or expansions of current programs to be implemented beyond those listed.

RECYCLING AND COMPOSTING

A. RECYCLING-COLLECTION/PROCESSING CATEGORY

A recycling program has been instituted for both residential and business sectors of Delta County. Curbside collection is provided to Escanaba and Gladstone city residents and village of Garden residents through their respective municipal solid waste system. Curbside collection is offered to residents and businesses in the outlying areas of the county through private haulers. Drop-off sites are available at the Delta Solid Waste Management Authority's recycling center, the Garden Township Transfer Station and Delta Landfill.

Materials collected include glass (clear, green and brown), aluminum, paper products (kraft bags, magazines, corrugated cardboard, office paper, newspaper, telephone books, catalogs, hard cover books, and paperback books) plastic #1 and #2, tin cans including aerosol cans and white ledger paper.

Separate from the Authority's recycling program, Lakestate Industries has begun collecting old textiles, which are reused or processed into rags.

Used appliances and scrap metal are accepted at either the recycling center or at the county landfill.

The material recovery facility began accepting recyclables from waste haulers, general public and businesses on September 21, 1992. The materials are processed for shipments to end markets. The drop-off facility at the Big Bay de Noc Transfer Station (Garden Township), which began accepting recyclable materials in early 1994, brings materials once a week to the recycling center.

Materials are brought to the recycling center by private and public waste haulers as well as individuals. A manned drop-off site is available weekdays and on Saturday mornings.

SELECTED SYSTEM

The two cities utilize a co-collection vehicle for the simultaneous collection of garbage and recyclables. The Village of Garden uses a trailer that is mounted at the rear of their garbage truck to collect materials. The private waste haulers use separate vehicles for collecting recyclable materials. Garden Township brings recyclable materials in a roll-off container to the recycling center.

Lakestate Industries, operates the recycling program under contract with the Landfill Authority. The property and equipment are owned by the Landfill Authority.

The Landfill Authority has a policy of not accepting certain recyclable materials at the landfill.

B. COMPOSTING

Composting sites have been made available for residents in Delta County. Grass clipping, leaves and brush are brought by residents to compost facilities located in Escanaba or Gladstone. The materials are composted and available for pick-up by residents. In addition wood chips are also made available.

Seasonally, the two cities pick-up leaves at the curb and deposit them at their respective compost facility.

As part of the CMC program, 950 backyard compost bins were made available to county residents.

The Cities are responsible for operations at their respective compost facilities. Materials are brought to the facility and windrowed for composting. Finished compost is made available to residents.

A tub grinder and compost screener is used by the City of Escanaba in processing compostable materials.

TABLE III-1

RECYCLING:

Program Name	Service Area[1]	Public or Private	Collection Point[3]	Collection Frequency[4]	Materials Collected[5]	Program Management Responsibilities[2] Development	Operation	Evaluation
Delta Recycling	Delta County	Public	c,d	w,m	a,b,c,d, e,f,p	6	6	6
Lakestates Industries	Delta County	Private	o	d	f1	5	5	5

[1] Identified by where the program will be offered. If throughout the planning area, then listed by planning area; if only in specific counties, then listed by county; if only in specific municipalities, then listed by its name and respective county.

2 [2] Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page III-29); 5 = Private Owner/Operator; 6 = Other (Identified on page III-29.)

[3] Identified by c = curbside; d = drop-off; o = onsite; and if other, explained.

[4] Identified by d = daily; w = weekly; b = biweekly; m = monthly; and if seasonal service also indicated by Sp = Spring; Su = Summer; Fa = Fall; Wi = Winter.

[5] Identified by the materials collected by listing of the letter located by that material type. A = Plastics; B = Newspaper; C = Corrugated Containers; D = Other Paper; E = Glass; F = Metals; P = Pallets; J = Construction/Demolition; K = Tires; F1, F2 etc. = as identified on page III-3029.

SELECTED SYSTEM

TABLE III-2

COMPOSTING:

Program Name	Service Area[1]	Public or Private	Collection Point[3]	Collection Frequency[4]	Materials Collected[5]	Program Management Responsibilities[2] Development	Operation	Evaluation
Escanaba City	Escanaba	p	do	d	glws	6	6	6
Gladstone City	Gladstone, Delta Co.	p	dc	db	glws	6	6	6

[1] Identified by where the program will be offered. If throughout the planning area, then listed by planning area; if only in specific counties, then listed by county; if only in specific municipalities, then listed by its name and respective county.

[2] Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page III-29); 5 = Private Owner/Operator; 6 = Other (Identified on page III-29).

[3] Identified by c = curbside; d = drop-off; o = onsite; and if other, explained.

[4] Identified by d = daily; w = weekly; b = biweekly; m = monthly; and if seasonal service also indicated by Sp = Spring; Su = Summer; Fa = Fall; Wi = Winter.

[5] Identified by the materials collected by listing of the letter located by that material type. G = Grass Clippings; L = Leaves; F = Food; W = Wood; P = Paper; S = Municipal Sewage Sludge; A = Animal Waste/Bedding; M = Municipal Solid Waste; F1, F2 etc. = as identified on page III-30.

SOURCE SEPARATION OF POTENTIALLY HAZARDOUS MATERIALS:

Since improper disposal of nonregulated hazardous materials has the potential to create risks to the environment and human health, the following programs have been implemented to remove these materials from the County's solid waste stream.

Program Name	Service Area[1]	Public or Private	Collection Point[3]	Collection Frequency[4]	Materials Collected[5]	Program Management Responsibilities[2]		
						Development	Operation	Evaluation
Delta County	Delta County	Public	o	qtrly	chp,ps,ph	6	6	6

[1] Identified by where the program will be offered. If throughout the planning area, then listed by planning area; if only in specific counties, then listed by county; if only in specific municipalities, then listed by its name and respective county.

[2] Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page III-29); 5 = Private Owner/Operator; 6 = Other (Identified on page III-29).

[3] Identified by c = curbside; d = drop-off; o = onsite; and if other, explained.

[4] Identified by d = daily; w = weekly; b = biweekly; m = monthly; and if seasonal service also indicated by Sp = Spring; Su = Summer; Fa = Fall; Wi = Winter.

[5] Identified by the materials collected by listing of the letter located by that material type. AR = Aerosol Cans; A = Automotive Products except Used Oil, Oil Filters & Antifreeze; AN = Antifreeze; B1 = Lead Acid Batteries; B2 = Household Batteries; C = Cleaners and Polishers; H = Hobby and Art Supplies; OF = Used Oil Filters; P = Paints and Solvents; PS = Pesticides and Herbicides; PH = Personal and Health Care Products; U = Used Oil; OT = Other Materials and identified.

TABLE III-4

PROPOSED RECYCLING:

Program Name (if known)	Service Area[1]	Public or Private	Collection Point[3]	Collection Frequency[4]	Materials Collected[5]	Program Management Responsibilities[2] Development	Operation	Evaluation
		____	____	____	____	____	____	____

[1] Identified by where the program will be offered. If throughout the planning area, then listed by planning area; if only in specific counties, then listed by county; if only in specific municipalities, then listed by its name and respective county.

[2] Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page III-29); 5 = Private Owner/Operator; 6 = Other (Identified on page III-29).

[3] Identified by c = curbside; d = drop-off; o = onsite; and if other, explained.

[4] Identified by d = daily; w = weekly; b = biweekly; m = monthly; and if seasonal service also indicated by Sp = Spring; Su = Summer; Fa = Fall; Wi = Winter.

[5] Identified by the materials collected by listing of the letter located by that material type. A = Plastics; B = Newspaper; C = Corrugated Containers; D = Other Paper; E = Glass; F = Metals; P = Pallets; J = Construction/Demolition; K = Tires; L1, L2 etc. = as identified on page 29.

TABLE III-5

PROPOSED COMPOSTING:

Program Name, (if known)	Service Area[1]	Public or Private	Collection Point[3]	Collection Frequency[4]	Materials Collected[5]	Program Management Responsibilities[2] Development	Operation	Evaluation

[1] Identified by where the program will be offered. If throughout the planning area, then listed by planning area; if only in specific counties, then listed by county; if only in specific municipalities, then listed by its name and respective county.

[2] Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page III-29); 5 = Private Owner/Operator; 6 = Other (Identified on page III-29).

[3] Identified by c = curbside; d = drop-off; o = onsite; and if other, explained.

[4] Identified by d = daily; w = weekly; b = biweekly; m = monthly; and if seasonal service also indicated by Sp = Spring; Su = Summer; Fa = Fall; Wi = Winter.

[5] Identified by the materials collected by listing of the letter located by that material type. G = Grass Clippings; L = Leaves; F = Food; W = Wood; P = Paper; S = Municipal Sewage Sludge; A = Animal Waste/Bedding; M = Municipal Solid Waste; F1, F2 etc. = as identified on page 29.

[1]TABLE III-6

PROPOSED SOURCE SEPARATION OF POTENTIALLY HAZARDOUS MATERIALS:

Program Name, (if known)	Service Area[2]	Public or Private	Collection Point[4]	Collection Frequency[5]	Materials Collected[6]	Program Management Responsibilities[3] Development	Operation

1

2 [2] Identified by where the program will be offered. If throughout the planning area, then listed by planning area; if only in specific counties, then listed by county; if only in specific municipalities, then listed by its name and respective county.

[3] Identified by 1 = Designated Planning Agency; 2 = County Board of Commissioners; 3 = Department of Public Works; 4 = Environmental Group (Identified on page III-29); 5 = Private Owner/Operator; 6 = Other (Identified on page III-29).

[4] Identified by c = curbside; d = drop-off; o = onsite; and if other, explained.

SELECTED SYSTEM

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[1] Identified by d = daily; w = weekly; b = biweekly; m = monthly; and if seasonal service also indicated by Sp = Spring; Su Fa = Fall;Wi = Winter.

[2]Identified by the materials collected by listing of the letter located by that material type. AR = Aerosol Cans; A = Automotiv Filters &

Antifreeze; AN = Antifreeze; B1 = Lead Acid Batteries; B2 = Household Batteries; C = Cleaners and Polishers; H = Hob Oil

Filters; P = Paints and Solvents; PS = Pesticides and Herbicides; PH = Personal and Health Care Products; U = Used Oil; identified. Fa = Fall;Wi = Winter.

[2]Identified by the materials collected by listing of the letter located by that material type. AR = Aerosol Cans; A = Automotiv Filters &

Antifreeze; AN = Antifreeze; B1 = Lead

IDENTIFICATION OF RESOURCE RECOVERY MANAGEMENT ENTITIES:

The following identifies those public and private parties, and the resource recovery or recycling programs for which they have management responsibilities.

Environmental Groups:

Other:

Delta Solid Waste Management Authority
Lakestate Industries, Inc.
Delta Disposal
City of Escanaba
City of Gladstone

PROJECTED DIVERSION RATES:

The following estimates the annual amount of solid waste which is expected to be diverted from landfills and incinerators as a result of the current resource recovery programs and in five and ten years.

Collected Material: Annual Tons Diverted:	Projected Annual Tons Diverted: Current	5th Yr	10th Yr	Collected Material:	Projected Current	5th	
Yr	10th Yr						
A. TOTAL PLASTICS:	102 1360	108 1414	112	G. GRASS AND LEAVES:	1308		
B. NEWSPAPER:	292	303	315	H. TOTAL WOOD WASTE:	425	442	459
C. CORRUGATED CONTAINERS:	1556	1618	1682	I. CONSTRUCTION AND DEMOLITION:	____	...	
D. TOTAL OTHER PAPER:	1441	1498	1558	J. FOOD AND FOOD PROCESSING:	____	...	
E. TOTAL GLASS:	401	417	433	K. TIRES:	14	15	16
F. OTHER MATERIALS:				L. TOTAL METALS:	____	...	
F1. Textiles	10	11	13	F3. tin/aluminum	114	118	123
F2____	____	____	____	F4 appliances	54	56	58

MARKET AVAILABILITY FOR COLLECTED MATERIALS:

The following identifies how much volume that existing markets are able to utilize of the recovered materials which were diverted from the County's solid waste stream.

Collected Material:	In-State Markets	Out-of-State Markets	Collected Material	In-State Markets	Out-of-Markets
A. TOTAL PLASTICS:	100%	____	G. GRASS AND LEAVES:	100	.....
B. NEWSPAPER:	____	100%	H. TOTAL WOOD WASTE:	50%	50%
C. CORRUGATED CONTAINERS:	____	100%	I. CONSTRUCTION AND DEMOLITION:	____	.....
D. TOTAL OTHER PAPER:	____	100%	J. FOOD AND FOOD PROCESSING	____	.....

E. TOTAL GLASS:	____	100%	K. TIRES:	____	100%
F. OTHER MATERIALS:			L. TOTAL METALS:		
F1. textiles	____	100%	F3. tin/aluminum	____	100%
F2. ____	____	____	F4. appliances	____	100%

EDUCATIONAL AND INFORMATIONAL PROGRAMS:

It is often necessary to provide educational and informational programs regarding the various components of a solid waste management system before and during its implementation. These programs are offered to avoid miscommunication which results in improper handling of solid waste and to provide assistance to the various entities who participate in such programs as waste reduction and waste recovery. Following is a listing of the programs offered or proposed to be offered in this County.

Program Topic[1]	Delivery Medium[2]	Targeted Audience[3]	Program Provider[4]
1	r,n,e,	p,s (K-12)	Lakestate Industries
2	n,w,e	p,s (K-12)	City of Escanaba DPW
3	r,n,e	p,s (K-12)	Delta Solid Waste Management Auth.

[1] Identified by 1 = recycling; 2 = composting; 3 = household hazardous waste; 4 = resource conservation; 5 = volume reduction; 6 = other which is explained.

[2] Identified by w = workshop; r = radio; t = television; n = newspaper; o = organizational newsletters; f = flyers; e = exhibits and locations listed; and ot = other which is explained.

[3] Identified by p = general public; b = business; i = industry; s = students with grade levels listed. In addition if the program is limited to a geographic area, then that county, city, village, etc. is listed.

[4] Identified by EX = MSU Extension; EG = Environmental Group (Identify name); OO = Private Owner/Operator

[4] Identified by EX = MSU Extension; EG = Environmental Group (Identify name); OO = Private Owner/Operator
(Identify name); HD = Health Department (Identify name); DPA = Designated Planning Agency;
CU = College/University (Identify name); LS = Local School (Identify name); ISD = Intermediate School District
(Identify name); O = Other which is explained.

TIMETABLE FOR SELECTED SYSTEM IMPLEMENTATION

This timetable is a guideline to implement components of the Selected System. The Timeline gives a range of time in which the component will be implemented such as "1995-1999" or "On-going." Timelines may be adjusted later, if necessary.

TABLE III-7

Management Components	Timeline
Resource Recovery Program	on-going
Volume Reduction Techniques	on-going
Collection Process	on-going
Landfilling	on-going
Enforcement Provisions	on-going

SITING REVIEW PROCEDURES

AUTHORIZED DISPOSAL AREA TYPES

The following solid waste disposal area types may not be sited by this Plan. Any proposal to construct a facility listed herein shall be deemed inconsistent with this Plan.

SITING CRITERIA AND PROCESS

Expansion or constructions of the following solid waste facilities are considered to be consistent with the Delta Solid Waste Management Plan Update:

- Expansions of the Delta Landfill facility located in Section 22, Township 39 North, Range 23 West, Delta County is permitted.

- Expansions of the Escanaba Paper Company (Mead Paper Publishing Division) landfill facility located in Sections 25 and 36, Township 40 North, Range 23 West is permitted.

- Construction of a solid waste transfer station in Section 22, Township 39 North, Range 23 West, Delta County is permitted.

Facilities other than those identified above require a formal amendment to the Plan Update in order to be considered consistent with the County Solid Waste Management Plan.
Ten years of landfill capacity has been provided to Delta County and therefore Delta County chooses not to have a siting process in its Plan.

SOLID WASTE MANAGEMENT COMPONENTS[1]

The following identifies the management responsibilities and institutional arrangements necessary for the implementation of the Selected Waste Management System. Also included is a description of the technical, administrative, financial and legal capabilities of each identified existing structure of persons, municipalities, counties and state and federal agencies responsible for solid waste management including planning, implementation, and enforcement.

Resource Recovery Program:

- The Delta Solid Waste Management Authority will maintain the county-wide recycling program. The Authority will continue to operate the recycling center accepting, processing and transporting collected recyclable to appropriate markets. Management operations may be contracted out to a third party; currently Lakestate Industries manages the recycling program for the Authority.

Financial support of the program will be through a portion of the tipping fee (currently $3.00 per ton), revenue from material sales, and funding from the landfill operations.

The recycling program will remain a voluntary system for residents, but the Delta Landfill will take appropriate steps to ensure recyclable materials are not being disposed of at the landfill. The oversight of the program will be with the Delta Solid Waste Management Authority, who will work with the private haulers, local units and Lakestate Industries to ensure the continuation of the program.

- Operation of the composting facilities in the Cities of Escanaba and Gladstone will remain the responsibility of the respective city. The cities will continue to utilize their own staff and resources for the programs. Equipment purchased by the Authority through the Clean Michigan Fund grant is maintained by the cities.

Hazardous Waste Collection:

- The Delta Solid Waste Management Authority will continue with the Household Hazardous Waste Collection Program and the Upper Peninsula Pesticide Collection Program.

The household hazardous waste collection program is part of the Landfill Authority's Supplemental Environmental Program. In lieu of paying $30,000 for non-compliance with DEQ regulations, the Landfill Authority agreed to spend $50,000 on implementing a household hazardous waste collection program. Continued financial support of the household hazardous waste collection program will be through revenues from landfill operations and/or a fee.

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[1] Components or subcomponents may be added to this table.

Volume Reduction Techniques:

- The Delta Landfill Authority will continue to monitor the use of the compactor at the landfill to save valuable airspace at the facility.

Collection Process:

- Local units of governments will retain the right to collect solid waste within their jurisdiction, contract with private haulers or allow the private sector to assume the service. Private haulers will continue to provide waste collection services to residences and businesses within the county. The cities of the Escanaba and Gladstone and the village of Garden (and other municipal waste haulers) will be responsible for funding their respective programs in accordance with state statutes.

- Garden Township will continue with operation of the Big Bay de Noc Solid Waste Transfer Station transporting the wastes to the Delta Landfill. The Township could contract with a private firm for operation and management of the facility.

Operational costs of the facility will be the responsibility of Garden Township. Funds could come from the township's general fund, extra voted millage, special assessment and/or per bag fee charged to non-residents. Through agreements, the Townships of Nahma and Fairbanks could contribute toward the operational costs.

Landfilling:

- The landfilling of wastes will remain the primary waste disposal option.

- The Delta Solid Waste Management Authority will continue with its role of providing for the disposal of waste in Delta County. Construction of new cells and\or expansions of the existing site will occur as needed.

Expansion costs should be funded through the tipping fee; sufficient funds should be set aside for construction costs, as well as reserve fund to pay for the eventual closure of the facility. The Authority should periodically evaluate the user fee to make certain the tonnage fee collected adequately provides sufficient revenue for operations, future expansion and closure activities.

- Escanaba Paper Company (Mead Paper Publishing Division) will continue to manage its wastes at its own landfill facility. Construction of new cells and expansions at the existing facility will occur as needed. Operating costs are the responsibility of Mead Corporation.

Education/Public Awareness:

- The on-going education of the public concerning proper waste disposal options and methods and recycling/composting guidelines is important. While many agencies and organizations contribute support and resources for education, a coordinated effort is needed. The Landfill Authority should be responsible for coordinating the education and public awareness efforts:

Lakestates Industries, as manager of the county recycling center, should promote and educate the public on proper recycling methods.

Landfill Authority should promote the household hazardous waste and UP Pesticide Collection programs.

The Cities of Escanaba and Gladstone should promote their respective composting programs.

The Landfill Authority should promote the disposal of wastes in a safe and environmentally conscious manner.

Waste haulers should be encouraged to publicize and encourage recycling by their customers.

Enforcement Provisions:

- The Delta County Board of Commissioners is responsible for enforcement of the county flow control ordinance and provisions of the County Solid Waste Management Plan.

Designated Planning Agency/Solid Waste Planning Committee

- The CUPPAD Regional Commission will continue as the Designated Planning Agency for Delta County. Letters of consistency for facilities or programs within Delta County, which are not subject to a siting criteria, shall be issued by the CUPPAD Regional Commission.

- The Delta County Board of Commissioners will be responsible for appointing the solid waste planning committee to carry out the solid waste planning activities, as authorized by Part 115. Letters of consistency for new or expanded solid waste facilities subject to a siting criteria shall be issued by the Planning Committee.

IDENTIFICATION OF RESPONSIBLE PARTIES

Document which entities within the County will have management responsibilities over the following areas of the Plan.

Resource Conservation:

Source or Waste Reduction -

Product Reuse -

Reduced Material Volume -

Increased Product Lifetime -

Decreased Consumption -

Resource Recovery Programs:

Composting - City of Escanaba, City of Gladstone

Recycling - Delta Solid Waste Management Authority- Delta Recyling Program, Lakestate Industries

Energy Production -

Volume Reduction Techniques: Delta Solid Waste Management Authority

Collection Processes: City of Escanaba, City of Gladstone, Rich Nicols Disposal, Delta Disposal, Great American Disposal

Transportation: City of Escanaba, City of Gladstone, private haulers, individuals hauling to landfill

Disposal Areas:

Processing Plants -

Incineration -

Transfer Stations - Garden Township

Sanitary Landfills - Escanaba Paper Company, Delta Solid Waste Management Authority

Ultimate Disposal Area Uses: City of Escanaba

Local Responsibility for Plan Update Monitoring & Enforcement: Delta County Board of Commissioners

Educational and Informational Programs: Delta Solid Waste Management Authority, U.P. Recycling Coalition

Documentation of acceptance of responsibilities is contained in Appendix D.

LOCAL ORDINANCES AND REGULATIONS AFFECTING SOLID WASTE DISPOSAL

This Plan update's relationship to local ordinances and regulations within the County is described in the option(s) marked below:

☒ 1. Section 11538.(8) and rule 710 (3) of Part 115 prohibits enforcement of all County and local ordinances and regulations pertaining to solid waste disposal areas unless explicitly included in an approved Solid Waste Management Plan. Local regulations and ordinances intended to be part of this Plan must be specified below and the manner in which they will be applied described.

- Delta County Flow Control Ordinance: Specifies that all waste generated within Delta County to be disposed of at the Delta Landfill, with certain exceptions. Violations are a misdemeanor punishable by a fine not to exceed $500 or 90 days imprisonment.

- Chapter 14 Solid Waste, Recycling, Yard Waste and Littering Code of Ordinance, City of Escanaba: Among other things, the ordinance establishes or provides for the following: a solid waste utility and solid waste fund for the collection of a fees charged to offset the city's landfill costs, solid waste containers, transporting of solid waste, recycling and yard waste disposal.

- Resolution by City of Gladstone on June 23, 1997 to approve a $4.00 per month charge added to the City utility bills (effective August 1, 1997) to offset the increased costs of landfill charges.

☐ 2. This Plan recognizes and incorporates as enforceable the following specific provisions based on existing zoning ordinances:

A. Geographic area/Unit of government: _____

Type of disposal area affected:

Ordinance or other legal basis: _____

Requirement/restriction:

X 3. This Plan authorizes adoption and implementation of local regulations governing the following subjects by the indicated units of government without further authorization from or amendment to the Plan.

- Solid waste collection programs
- Franchise agreements for collection, disposal, transfer or processing of solid waste
- Vehicle licensing fees or regulations
- Fee programs instituted for collection, disposal, transfer or processing of solid waste
- Waste reduction initiatives
- Construction debris/demolition debris reduction or processing programs
- Yard waste reduction and composting programs
- Use and operations of a solid waste transfer station
- Air Pollution control ordinances

Local Units of Government:
Delta County
Ford River Township
Baldwin Township
Garden Township
Bark River Township
Village of Garden
Bay de Noc Township
City of Gladstone
Brampton Township
Maple Ridge Township
Ensign Township
Masonville Township
City of Escanaba
Nahma Township
Escanaba Township
Wells Township
Fairbanks Township

CAPACITY CERTIFICATIONS

Every County with less than ten years of capacity identified in their Plan is required to annually prepare and submit to the DEQ an analysis and certification of solid waste disposal capacity validly available to the County. This certification is required to be prepared and approved by the County Board of Commissioners.

☒ This County has more than ten years capacity identified in this Plan and an annual certification process is not included in this Plan.

☐ Ten years of disposal capacity has not been identified in this Plan. The County will annually submit capacity certifications to the DEQ by June 30 of each year on the form provided by DEQ. The County's process for determination of annual capacity and submission of the County's capacity certification is as follows:

APPENDIX

ADDITIONAL INFORMATION

REGARDING THE

SELECTED

SYSTEM

EVALUATION OF RECYCLING

The following provides additional information regarding implementation and evaluations of various components of the Selected System.

Delta County's waste steam is typical of other counties in the Upper Peninsula. A variety of waste materials, such as glass, paper (news, corrugated cardboard, magazines, office), metal (aluminum and steel) cans, and plastic are available for recycling.

Delta County was one of six communities selected to receive a Clean Michigan Community grant through the Solid Waste Alternative Program (SWAP). Consultants for the project prepared a report to provide technical and financial information necessary to implement a model recycling and composting program. This detailed report, *Delta County CMC Implementation Plan, Final Report*, dated September 13, 1991 was approved by the Delta Solid Waste Management Authority. The concepts of recycling and composting of the plan were embraced by most of the communities within Delta County. This plan is the basis for the existing recycling and composting program in place in Delta County.

DETAILED FEATURES OF RECYCLING AND COMPOSTING PROGRAMS:

List below the types and volumes of material available for recycling or composting.

The following materials, types and volumes are potentially available in the county waste stream for recycling:

MATERIAL	PROJECTED QUANTITY AVAILABLE FOR RECYCLING (Tons)
Paper Products	1,173
Glass	518
Plastic #1 and #2	84
Old Magazines	96
Old Corrugated Cardboard	765
Tin	140
Aluminum	13
Textiles	100
Appliances	75
Total	2,964

The following amount of compostable materials are potentially available in the county:

MATERIAL	AMOUNT
Leaves	1,337 tons
Grass Clippings	855 tons
Brush	630 tons
Total	2,822 tons

The following briefly describes the processes used or to be used to select the equipment and locations of the recycling and composting programs included in the Selected System. Difficulties encountered during past selection processes are also summarized along with how those problems were addressed:

Equipment Selection

Existing Programs:

Tub Grinder
Sweepster, Model LL91DR Leaf Loader
Air Compressor
Horizontal baler
Platform scale
Glass crushers
feeder
Magazine shredder
Screener
Vertical baler
Hoppers
Conveyor
Forklift
Sort line

Proposed Programs:

Site Availability & Selection

Existing Programs:

Recycling Center site description:

The recycling processing center is operated under contract by Lakestate Industries. The recycling processing center is located across the street from the Lakestate Industries, Inc. operations.

At the recycling center, the following buildings are used for:

Building #2: final sorting of newspaper and shiny materials; shredding and baling of newspaper for sale as animal bedding, sorting and crushing of clear, brown and green glass for shipping in gaylord boxes to market; and decapping and baling of plastic soft drink bottles.

Building #3: tipping floor for deposit of materials brought for processing; sort line for sorting different material types; baler; cold storage area for storing baled materials ready for shipment to market; and shipping docks.

Drive-through drop-off building: garage type structure for depositing of sorting of collected materials.

Compost Facility site descriptions:

Escanaba:
The Escanaba compost processing facility is approximately a 4.5 acre site located on land that

was originally a sandpit that was later filled in with ash from the local coal-burning power plant. The site is located within Escanaba city limits, south of 20th Avenue North and west of Sheridan Road, with an entrance off 20th Avenue North.

The general elevation of the site is approximately 30 feet above lake level. The parcel is sloped 1.5% from west to east, with the highest point of the site being approximately 622 feet and the lowest point at 609 feet. The surface of the site, to a depth of approximately 8 to 10 feet, is composed of ash from the power plant.

The site now has dirt-covered access roads and one cable barrier to limit access to the active composting area. The city plans to pave the access road and all actively used portions of the site with a 2-inch layer of reclaimed asphalt millings. The compost facility is serviced by water.

A chain link fence is on the east, west and south sides of the compost facility, with designated areas for both drop-off and pick-up of materials.

Gladstone:
The Gladstone compost processing site is located on approximately a 3 acre site on North Bluff Drive. The former city landfill is located to the north and west.

The general elevation of the site is approximately 720 feet above sea level. The highest point of the site is approximately 723 feet. Drilling logs indicate that the surface soil on the entire bluff area is composed of sand. Directly across from the site entrance on North Bluff Drive is Gladstone Sports Park, located on city-owned land about 100 feet above the city.

Snow fencing is located on three sides of the active composting area. Snow fencing is used to designate the specific drop-off locations.

The composting site has sufficient space to hold approximately 7,000 cubic yards of compostables during each full processing cycle. If 4,700 cubic yards of yard waste are delivered to the site annually, as projected, the site can accommodate additional volumes without site expansion.

Composting Operating Parameters:

The following identifies some of the operating parameters which are to be used or are planned to be used to monitor the composting programs.

Existing Programs:

Program Name: Unit	pH Range	Heat Range	Other Parameter	Measurement
Escanaba Composting	7.8-8.1	_____	_____	.....
Gladstone Composting	7.8-8.1	_____	_____	..... _____
_____	_____	_____	_____	..... _____
_____	_____	_____	_____	..... _____
_____	_____	_____	_____	..... _____
_____	_____	_____	_____	.....
_____	_____	_____	_____	..... _____
_____	_____	_____	_____	..... _____

Proposed Programs:

Program Name Unit	pH Range	Heat Range	Other Parameter	Measurement
_____	_____	_____	_____	.....
_____	_____	_____	_____	..... _____
_____	_____	_____	_____	..... _____
_____	_____	_____	_____	..... _____
_____	_____	_____	_____	..... _____
_____	_____	_____	_____	.....
_____	_____	_____	_____	..... _____

COORDINATION EFFORTS:

Solid Waste Management Plans need to be developed and implemented with due regard for both local conditions and the state and federal regulatory framework for protecting public health and the quality of the air, water, and land. The following states the ways in which coordination will be achieved to minimize potential conflicts with other programs and, if possible, to enhance those programs.

It may be necessary to enter into various types of agreements between public and private sectors to be able to implement the various components of this solid waste management system. The known existing arrangements are described below which are considered necessary to successfully implement this system within the County. In addition, proposed arrangements are recommended which address any discrepancies that the existing arrangements may have created or overlooked. Since arrangements may exist between two or more private parties that are not public knowledge, this section may not be comprehensive of all the arrangements within the County. Additionally, it may be necessary to cancel or enter into new or revised arrangements as conditions change during the planning period. The entities responsible for developing, approving, and enforcing these arrangements are also noted.

Ultimate responsibility for implementing the Solid Waste Plan rests with the Delta County Board of Commissioners as part of its duties of general governance. The County Board recognizes that other agencies can provide guidance and recommendations on various issues.

The Board of Commissioners has requested the County Planning Commission to be cognizant of any pertinent ordinances or approved land use plans or wellhead protection plans within the county, and any pertinent restrictions or ongoing commitments contained in plans for air quality, water quality or waste management which may be required to meet state or federal standards.

The Delta-Menominee District Health Department will be requested to provide guidance to the County Board of Commissioners on such issues as on water quality, wellhead protection plans and other environmental issues.

The Board of Commissioners has requested the Delta Solid Waste Management Authority to inform the County Board of any pertinent ordinances, restrictions and on-going commitments contained in waste management plans or operations of the Delta Landfill that may affect county level solid waste decisions.

Any county-level decisions affecting current or anticipated programs for solid waste management, air quality, water quality or land use planning may be made after consultation and recommendations from the county planning commission and receiving pertinent

information from the health department.

Any county-level decisions regarding solid waste management or enactment of or revisions of ordinances regarding solid waste management may be made after consultation and receiving a recommendation from the Delta Solid Waste Management Authority.

COSTS & FUNDING:

The following estimates the necessary management, capital, and operational and maintenance requirements for each applicable component of the solid waste management system. In addition, potential funding sources have been identified to support those components.

System Component[1]	Estimated Costs	Potential Funding Sources
Resource Conservation Efforts		
Resource Recovery Programs	$458,000/Year	tipping fees and market sales and government
Volume Reduction Techniques	$30,000	tipping fees
Collection Processes	$765,000/year	Customer
Transportation	included in collection	Customer
Disposal Areas	$1,214,000/year	Customer
Future Disposal Area Uses	unknown at present	City of Escanaba General Fund
Management Arrangements	$144,000	Tipping Fees
Educational & Informational Programs	$40,000	Tipping Fees

[1] These components and their subcomponents may vary with each system.

EVALUATION SUMMARY OF THE SELECTED SYSTEM:

The solid waste management system has been evaluated for anticipated positive and negative impacts on the public health, economics, environmental conditions, siting considerations, existing disposal areas, and energy consumption and production which would occur as a result of implementing this Selected System. In addition, the Selected System was evaluated to determine if it would be technically and economically feasible, whether the public would accept this Selected System, and the effectiveness of the educational and informational programs. Impacts to the resource recovery programs created by the solid waste collection system, local support groups, institutional arrangements, and the population in the County in addition to market availability for the collected materials and the transportation network were also considered. Impediments to implementing the solid waste management system are identified and proposed activities which will help overcome those problems are also addressed to assure successful programs. The Selected System was also evaluated as to how it relates to the Michigan Solid Waste Policy's goals. The following summarizes the findings of this evaluation and the basis for selecting this system:

The selected system is a continuation of the collection and disposal system in place at present. The evaluation of this alternative has been on ongoing process.

When the Delta Solid Waste Management Authority was faced with the possible DEQ closure of the Delta Landfill, the Landfill Authority received bids for disposal of waste. It was determined that reconstruction of the present landfill facility was more effective than complete landfill closure and transporting the waste to an out-of-county facility. Other alternatives proposed in the Plan have at one time or another been deliberated at various meetings; the conclusions being they were not appropriate for Delta County.

The recycling and composting programs were present in the county before the receipt of the state grant, but the SWAP grant enabled the county to expand the services offered.

The household hazardous waste collection program is the result of negotiations with the DEQ regarding a Consent Agreement.

ADVANTAGES AND DISADVANTAGES OF THE SELECTED SYSTEM:

Each solid waste management system has pros and cons relating to its implementation within the County. Following is an outline of the major advantages and disadvantages for this Selected System.

ADVANTAGES:

1. There are 28 years of capacity for waste disposal at the Delta Landfill.

2. Cost savings will continue as a result of compacting waste at the Delta Landfill.

3. The Landfill Authority structure provides for representation of cities and townships to discuss solid waste issues and concerns.

4. Public ownership of the landfill will assure the tipping fee is kept to a minimum with environmentally sound management.

5. The county-wide recycling and composting program will continue to divert materials away from the waste stream, thus extending the life of the landfill.

6. Waste generated through Mead Paper Publishing Division operations will be economically disposed of at their own disposal site.

7. Hazardous and pesticide collection program will assure that the integrity of the landfill is maintained.

DISADVANTAGES:

1. There is a lack of final disposal options available to the consumer.

2. After the landfill is closed, on-going closure activities will the responsibility of the Landfill Authority and the city of Escanaba.

3. The present voluntary recycling program does not result in 100% participation of the public.

NON-SELECTED

SYSTEMS

Before selecting the solid waste management system contained within this Plan update, the County developed and considered other alternative systems. The details of the non-selected systems are available for review in the County's repository. The following section provides a brief description of these non-selected systems and an explanation why they were not selected. Complete one evaluation summary for each non-selected alternative system.

SYSTEM COMPONENTS: Alternative #1 Discontinue Landfill Operations

The following briefly describes the various components of the non-selected system.

RESOURCE CONSERVATION EFFORTS:

Programs of this sort would be most successfully implemented on a state or national level. Opportunities for reuse such as bringing grocery bags back to the store on the next trip are practiced on a small scale.

VOLUME REDUCTION TECHNIQUES:

This alternative involves export of all waste. With transportation being a significant cost component, grinding and compaction would be utilized to maximize loads.

RESOURCE RECOVERY PROGRAMS:

Separation of recyclables is needed to make certain that only waste is being exported for disposal.

COLLECTION PROCESSES:

Collection could still be performed by public or private entities. More attention to source separation of recyclables during collection.

TRANSPORTATION:

Transportation is a significant factor in this alternative. Direct haul to the landfill which currently occurs would be expensive and inefficient due to partial and "loose" loads.

DISPOSAL AREAS:

Utilization of transfer stations would increase. It would be necessary to construct a transfer station at the landfill.

INSTITUTIONAL ARRANGEMENTS:

Documentation guaranteeing capacity from another county would be necessary. Arrangements would be needed with a private landfill company.

EDUCATIONAL AND INFORMATIONAL PROGRAMS:

Greater emphasis on source separation, reuse, and recycling would be necessary to make the waste volume requiring final out-of-county disposal as small as possible.

CAPITAL, OPERATIONAL, AND MAINTENANCE COSTS:

Cost associated with this alternative would be primarily out-of-county tipping fees and transportation. Eliminate investment in landfilling equipment but increase transportation and volume reduction equipment. Cost for closure of landfill is $3.07 million. The overall cost per ton of this alternative is $58.50.

SUMMARY OF NON-SELECTED SYSTEM

The non-selected system was evaluated to determine its potential of impacting human health, economics, environmental, transportation, siting and energy resources of the County. In addition, it was reviewed for technical feasibility, and whether it would have public support. Following is a brief summary of that evaluation along with an explanation why this system was not chosen to be implemented.

Human Health - There may be additional health risks associated with increased waste handling to accomplish the extraction of recyclables, grinding, and compaction desirable before export takes place.

There would be none of the health risks associated with operation of a landfill.

Economics - A transfer station would need to be constructed, most likely at the landfill site. The Bay de Noc transfer station would be utilized for waste generated in eastern Delta County. Transportation costs would increase by approximately $88,200 based on hauling waste to the landfill located in Alger County.

Environmental - Greater attention to recycling and reduction of household hazardous waste which might otherwise be landfilled is advantageous. Not burying any waste in Delta County would be better for the local environment.

Transportation - With waste exportation, this component would be significantly impacted under this alternative. Not only would hauling distances be increased substantially but, direct

haul by individual businesses would also cease.

Siting - Current facilities could be modified and utilized under this alternative. A processing facility would be located at the present landfill.

Energy Resources - Increased transportation aspects of this alternative would consume additional energy.

Technical Feasibility - This alternative can be facilitated with existing resources.

Public Support - The substantial public investment in the Delta Landfill and the nearly 28 years of estimated capacity that exists there makes abandonment of the facility unlikely. This alternative, such as equipment failure or licensing problems that force short-term closure of the Delta Landfill would be considered as a contingency disposal system.

ADVANTAGES AND DISADVANTAGES OF THE NON-SELECTED SYSTEM:

Each solid waste management system has pros and cons relating to its implementation within the County. Following is a summary of the major advantages and disadvantages for this non-selected system.

Alternative # 1 - Discontinue Landfill

ADVANTAGES:

1. Enhanced participation in recycling.

2. Reduced environmental impact on Delta County.

DISADVANTAGES:

1. Increased transportation costs to a facility.

2. Increased tipping fees.

3. Liability associated with waste export.

4. Loss of control over costs.

5. Community opposition due to public investment in current alternative.

SYSTEM COMPONENTS: Alternative #2 Waste to Energy Facility

The following briefly describes the various components of the non-selected system.

RESOURCE CONSERVATION EFFORTS:

Programs of this sort would be most successfully implemented on a state or national level. Opportunities for reuse such as bringing grocery bags back to the store on the next trip are practiced on a small scale.

VOLUME REDUCTION TECHNIQUES:

Combustibles would be eliminated from the waste stream. The only materials requiring landfilling would be incinerator ash and non-combustibles.

RESOURCE RECOVERY PROGRAMS:

Sorting of waste into combustible/non-combustible materials would provide an opportunity to perform a much more intensive recycling and household hazardous waste program.

COLLECTION PROCESSES:

Collection could still be performed by public or private entities. Separation of combustible/non-combustible material will complicate collection.

TRANSPORTATION:

Keeping combustible/non-combustible material separate will potentially increase transportation costs. Siting of the incinerator (near an energy market) would have an impact based on the location chosen.

DISPOSAL AREAS:

A processing center, which currently does not exist in the County, would be necessary to sort materials. Existing transfer stations will require modification to keep materials separated. Less landfill space will be required.

INSTITUTIONAL ARRANGEMENTS:

Agreements with other counties may be necessary to assure sufficient volumes for operation.

EDUCATIONAL AND INFORMATIONAL PROGRAMS:

Greater emphasis on source separation, reuse, and recycling would be necessary to make the waste more compatible with incineration.

CAPITAL, OPERATIONAL, AND MAINTENANCE COSTS:

Cost associated with waste to energy facility would be incurred for land acquisition, facility construction, and processing facility construction. Ongoing costs for waste separation. Some disposal will still be required.

EVALUATION SUMMARY OF NON-SELECTED SYSTEM:

The non-selected system was evaluated to determine its potential of impacting human health, economics, environmental, transportation, siting and energy resources of the County. In addition, it was reviewed for technical feasibility, and whether it would have public support. Following is a brief summary of that evaluation along with an explanation why this system was not chosen to be implemented.

Human Health - There may be additional health risks associated with more extensive waste handling to accomplish the amount of sorting necessary for this alternative.

Michigan has strict regulations related to air emissions. The emissions created by the proposed waste to energy system will exceed those resulting from traditional power generation techniques.

Economics -A small waste to energy facility (30 tons/day) can cost nearly $3 million to construct. Delta County generates approximately 68 tons per day and it is assumed that a larger scale facility will be more expensive. Land acquisition will be another component of start up costs as a site near an "energy market" will be needed. There will also be costs associated with making the necessary connections to the consumer in order to utilize energy produced. Increased handling/sorting of material will be expensive.

Some cost recovery will result from the sale of energy.

Environmental -The smaller amount of material requiring final disposal (at the Landfill) will result in a smaller landfill being required and less "greenfield" being impacted by the facility.

Popularity of waste to energy facilities is limited because of difficulties in complying with air emission standards.

There is concern over the higher toxicity of ash resulting from waste combustion being buried in the landfill.

Transportation -Impacts on transportation are difficult to assess. Location of the facility will be based on the energy market which is developed.

Siting - Locating a suitable place is a concern.

Energy Resources - A waste to energy facility would tap a fuel source currently not used for energy production and preserve other fuels for the future.

Technical Feasibility - Modular facilities, sized to accommodate the amount of waste generated in the County and in compliance with emission standards are available.

Public Support - There has always been some level of support for deriving benefit from solid waste, if possible, rather than just burying it in the landfill. A waste to energy facility would be a means of accomplishing this.

As the selected alternative, in light of the substantial public investment in our landfill, the "environmentally friendly" aspect of keeping "useful" material out of the landfill would succumb to cold, hard economics.

ADVANTAGES AND DISADVANTAGES OF THE NON-SELECTED SYSTEM:

Each solid waste management system has pros and cons relating to its implementation within the County. Following is a summary of the major advantages and disadvantages for this non-selected system.

Alternative #2 - Incineration (Waste of Energy)

ADVANTAGES:

1. Small volume of residuals requiring landfilling.

2. Enhanced participation in recycling.

3. Production of energy from a resource that would have been buried.

4. Enhanced opportunity for hazardous waste control.

DISADVANTAGES:

1. Compliance with Michigan Air Quality Standards is difficult and expensive to achieve.

2. An energy market must be located.

3. There is an existing financial commitment to fund landfill construction bonds.

4. Construction and ongoing operational costs of an incinerator are greater than construction and operation of a landfill.

5. Waste volume generated in Delta County may not be sufficient for economic operation of an incinerator.

6. Toxicity of residue is high.

7. Community opposition due to public investment in current alternative.

SYSTEM COMPONENTS: Alternative #3 Organic Waste Conversion

The following briefly describes the various components of the non-selected system.

RESOURCE CONSERVATION EFFORTS:

Programs of this sort would be most successfully implemented on a state or national level. Opportunities for reuse such as bringing grocery bags back to the store on the next trip are practiced on a small scale.

VOLUME REDUCTION TECHNIQUES:

Combustibles would be eliminated from the waste stream. The only materials requiring landfilling would be non-combustibles.

RESOURCE RECOVERY PROGRAMS:

Sorting of waste into combustible/non-combustible materials would provide an opportunity to perform a much more intensive recycling and household hazardous waste program.

COLLECTION PROCESSES:

Collection could still be performed by public or private entities. Separation of combustible/non-combustible material will complicate collection.

TRANSPORTATION:

Keeping combustible/non-combustible material separate will potentially increase transportation costs. Waste from the Upper Peninsula and northeastern Wisconsin would be hauled by train or truck to the facility.

DISPOSAL AREAS:

Processing center, which currently do not exist in the County, would be necessary to sort materials. Existing transfer stations will require modification to keep materials separated. More landfill space will be required to dispose of non-combustible materials form out-of-county sources.

INSTITUTIONAL ARRANGEMENTS:

Agreements with other counties will be necessary to assure sufficient volumes for operation.

EDUCATIONAL AND INFORMATIONAL PROGRAMS:

Greater emphasis on source separation, reuse, and recycling would be necessary to make the waste more compatible with the program.

CAPITAL, OPERATIONAL, AND MAINTENANCE COSTS:

Cost associated with the facility would be incurred for land acquisition, facility construction, and processing facility construction. Ongoing costs for waste separation. Substantial disposal will be required.

EVALUATION SUMMARY OF NON-SELECTED SYSTEM:

The non-selected system was evaluated to determine its potential of impacting human health, economics, environmental, transportation, siting and energy resources of the County. In addition, it was reviewed for technical feasibility, and whether it would have public support. Following is a brief summary of that evaluation along with an explanation why this system was not chosen to be implemented.

Human Health - There may be additional health risks associated with more extensive waste handling to accomplish the amount of sorting necessary for this alternative.

Economics - A minimum size plant would cost $50 million and process 800 tons of solid waste per day.

Environmental- A number of environmental permits will be necessary, including air emission, soil erosion and sedimentation, an NPDES or Groundwater discharge Permit for storm water run-off.

Transportation- Existing transportation patterns will be altered, as significant amounts of solid waste will be needed to be brought to the processing plant. Trains would be used primarily in the transport of waste to the facility, but trucks would be employed to haul waste from other sources.

Siting- The facility would be sited adjacent to the present landfill to take advantage of the existing infrastructure and the need for disposal of materials that could not be processed into the fuel pellets.

Energy Resources- This alternative would utilize resources that normally would be buried in the ground and preserve other fuels for the future.

Technical Feasibility- This process has been demonstrated on a small scale, but feasibility on a large scale has not been widely demonstrated.

Public Support- There was considerable public opposition since large quantities of solid waste would be imported into the county and there would be an increase in the amount of waste that would be disposed of at the local landfill. There was the concern of hazardous wastes that would be in need of disposal.

ADVANTAGES AND DISADVANTAGES OF THE NON-SELECTED SYSTEM:

Each solid waste management system has pros and cons relating to its implementation within the County. Following is a summary of the major advantages and disadvantage for this non-selected system.

Alternative #3 Organic Waste Conversion

ADVANTAGES:

1. Production of energy from a resource that would have been buried.

DISADVANTAGES:

1. Increased environmental impact on Delta County.

2. Liability with disposal of waste from outside the county.

3. Waste volume required would necessitate importing massive quantities of waste from the U.P. and Wisconsin.

4. Compliance with environmental standards would be expensive to achieve.

5. Process has not been used in a widespread manner.

6. Construction and operational costs are greater than those of a landfill.

7. A market must be found for the sale of fuel pellets.

8. Community opposition due to public investment and importation of wastes.

PUBLIC PARTICIPATION

AND APPROVAL

The following summarizes the processes which were used in the development and local approval of the Plan including a summary of public participation in those processes, documentation of each of the required approval steps, and a description of the appointment of the solid waste management planning committee along with the members of that committee.

PUBLIC INVOLVEMENT PROCESS: A description of the process used, including dates of public meetings, copies of public notices, documentation of approval from solid waste planning committee, County board of commissioners, and municipalities.

Public participation has been encouraged throughout the planning process.

Notices of meeting were sent to all public officials and identified individuals as "interested parties" those individuals at least 10 days prior to each meeting. Notices of meetings were posted at the County Courthouse and the Escanaba Civic Center where the meetings were held.

A copy of the meeting minutes and a draft copy of the Plan was available for review at the county clerk's office.

arsan of the majority Struggling People's Organiza- n party. Senate President Edgard Leblanc said Preval aged [illegible] against our democratic institutions."

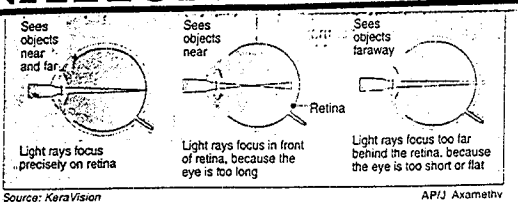
Des[illegible]ension. Port-au-Prince was quiet Tues- nig[illegible] There were no arrests after the shooting. Calvin's injuries weren't life-threatening, said Dr. rnard Leveque of University Hospital. Preval and stide, his mentor, visited her.

Preval's sister works as a personal secretary in charge of respondence for him. Although she is not a leading

The former president, who has already begun a campaign to return to office in the 2000 election, stands accused of shady machinations himself.

Smarth resigned in June 1997 to protest elections allegedly rigged with Preval's complicity to favor Aristide loyalists.

Since then, parliament failed to ratify four Preval choices for premier. He said Monday that once his latest nominee — Education Minister Jacques-Edouard Alexis — names a Cabinet, he will decree it the new government.



Source: KeraVision

AP/J. Axamethy

signted.

With Intacs, the implants' slight weight flattens the cornea.

KeraVision will target some 20 million mildly to moderately nearsighted Americans — whose vision ranges from 20/40, where it's OK to drive but a movie is blurry without glasses, to 20/200, where patients can barely see the big "E" at the top of eye charts.

Clinton proposes disability-to-work program

VASHINGTON (AP) — President Clinton is proposing a new $2 bil- n, five-year budget package meant help tens of thousands of disabled nericans return to work through a mbination of health coverage, tax dits and better rehabilitation ser- es.

Advocates say that health coverage the largest piece of the package — he No. 1 barrier that prevents peo- with disabilities from returning to workplace. Often they find jobs t do not offer health insurance coverage, and often their disabilities make it extraordinarily expensive to buy coverage on their own.

Clinton plans a White House ceremony today to endorse legislation on health benefits being introduced next week by Sens. James Jeffords, R-Vt., and Edward Kennedy, D-Mass., administration and congressional officials said.

"A major obstacle will be removed from the fulfillment of every disabled person's dream to work, live independently and be a contributing member of society," Kennedy said in a statement.

The president will also offer tax credits to help disabled workers pay for transportation, equipment and other expenses and more money to develop new information and communications technologies to help people with disabilities function in the workplace.

And he will back a plan that would let people with disabilities choose their rehabilitation centers, creating competition for the first time for the organizations that train people to take jobs. Centers that successfully place people in jobs would get bonus payments, thus reaping some of the savings the government will realize from reduced disability payments.

Under the current system, less than one-half of 1 percent of the 10 million Americans receiving disability benefits ever return to work, including people in the Social Security system for workers and the Supplemental Security Income program for the poor.

'ourt evaluates welfare benefits

VASHINGTON (AP) — The preme Court is considering ether states, fearful that migrating lfare recipients will drain their trea- ies, can pay newcomers lower ben- s than they pay other residents.

n designing its welfare reform n, California opted to pay new res- nts who sign up for welfare only as ch as they would have received in r former states.

After hearing arguments today, the rt is expected to decide by July ether states can pay different benefits depending on length of residency.

At issue is the constitutionally protected right to travel in a case that may indicate the court's attitude toward congressional efforts to give states more control over social policy.

Welfare advocates protest that the law unfairly penalizes people who move to California never intending to go onto welfare but find themselves in financial trouble. Under the policy, new residents may be stuck with California's high cost of living but meager benefits, they say.

Scott E. Kwarciany D.C.

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CITY OF ESCANABA
SUMMARY OF ORDINANCE NO. 952

Ordinance No. 952 as approved at a regular City Council meeting held Thursday, January 7, 1999, is:

AN ORDINANCE TO AMEND ORDINANCE NO. 940 ENTITLED, "AN ORDINANCE TO MAKE APPROPRIATIONS AND CORRESPONDING REVENUES FOR THE YEAR ENDED JUNE, 30, 1999."

Ordinance 952 will be in full force and effect ten (10) days after the date of this publication.

A true copy of this ordnance may be inspected and/or obtained from the office of the city Clerk, 410 Ludington Street, Escanaba, Michigan 49829.

Robert S. Richards, CMC
City Clerk

PUBLIC HEARING NOTICE
DELTA COUNTY SOLID WASTE PLAN

A Public Hearing is scheduled for WEDNESDAY, FEBRUARY 24, 1999 at the Escanaba Civic Center, 225 North 21st Street, Escanaba beginning at 7:00 p.m. to receive comments from the public regarding the draft Delta County Solid Waste Plan. A copy of the Plan is available for review at the Delta County Clerk's office, 310 Ludington Street, Escanaba. Oral or written comments are encouraged. Immediately following the Public Hearing, the County Solid Waste Planning Committee will meet to review the comments and amend the plan if necessary and take appropriate action on approving the Plan.

Tom Vitito, Chairman
Delta County Solid Waste Planning Committee

Ovation Schedule for

Expect More From Television

D.C. Sorted Waste

Stating the obvious — or ridiculous

Dear Ann

Ann Landers

Dear Ann Landers: thought you might be interested in the humor that circulates over office fax machines and e-mail these days. Feel free to print it or toss it. — David Broome, Phoenix, Ariz.

Dear David: Thanks for sending the Broome weepings my way. I have culled my favorites, and here they are:

The best headlines from recent years: (These actually appeared.)

Drunk Gets Nine Months in Violin Case

Never Withhold Herpes Infection from Loved One

Iraqi Head Seeks Arms

Panda Mating Fails; Veterinarian Takes Over

British Left Waffles on Falkland Islands

Eye Drops Off Shelf

Enraged Cow Injures Farmer With Ax

Plane Too Close to Ground, Crash Probe Indicates

Miners Refuse to Work After Death

Study Finds Sex Pregnancy Link

Stolen Painting Found by Tree

Two Sisters Reunited After 18 Years in Checkout Line

If Strike Isn't Settled Quickly It May Last a While

Cold Wave Linked to Temperatures

New Study for Obesity Looks for Larger Test Group

Red Tape Holding Up Bridges

Local High School Dropouts Cut in Half

Hospitals Are Sued by 7 Foot Doctors

Advertising campaigns can be just as funny as these headlines. Breaking into the international market is a goal of most growing corporations, but language and cultural differences sometimes create problems. For example: Scandinavian vacuum manufacturer Electrolux used the following in an American ad campaign: "Nothing sucks like Electrolux." It was pulled after two days.

In Taiwan, the translation of the Pepsi slogan "Come Alive With the Pepsi Generation" came out "Pepsi will bring your ancestors back from the dead."

Also in Chinese, the Kentucky Fried Chicken slogan "Finger lickin' good" translated as "Eat your fingers off."

When General Motors introduced the Chevy Nova in South America, it was unaware that "no va" means "it won't go." After the company figured out why it wasn't selling many cars, it renamed the car "Caribe," for its Spanish-language markets.

Ford had similar problems in Brazil when the Pinto flopped. The company found out that Pinto was Brazilian slang for "tiny male genitals."

Hunt-Wesson introduced its Big John products in Quebec as Gros Jos before learning that means "big breasts" in French. This gaffe had no noticeable effect on sales. Japan's second largest tourist agency was mystified when it entered English-speaking markets and began receiving requests for "unusual sex tours." Upon finding out why, the owners of the Kinki Nippon Tourist Co. changed its name.

Seizures are brain electrical storms

Your Health

Dear Dr. Donohue: Some time ago, I wrote regarding something I called mouth explosions. The "explosions" could make me bite my tongue or crack a tooth. I saw a neurologist, who told me I was having seizures. He put me on Phenobarbital. That is a grand mal seizure.

If only a small section of brain is involved, the seizure is confined to a specific body area — the hands, the leg or the mouth. That kind of seizure is a "partial seizure." When the person remains conscious, abnormalities that induce seizures.

Phenobarbital is only one of many medicines that control seizures. If seizures continue, then switching to a different medicine can control the discharge of electrical activity that precipitates a seizure.

Most states don't allow seizure-prone patients to drive, both for their protection and the protection of the general public. It is the pits. However, please give me some information on this syndrome? — E.L.

Answer: Restless leg syndrome produces an unpleasant, creeping sensation in the legs when a person is at rest, especially when in bed for a night's sleep. The person has an irresistible urge to get up and walk. Movement relieves the sleep-robbing sensation.

In a few people, a deficiency of iron

CALENDAR

TUESDAY

— Sexual Assault support group. 6 to 8 p.m., Call 789-1166.

— BiPolar Support Group. 7-9 p.m. The Link in Delta Plaza, 906-786-7937.

— Overeaters Anonymous. 7 p.m., Central Methodist Church, Escanaba.

— Al-Anon. 7:30 p.m., Delta Alano Club. Call 428-1494.

— Ala – Tot. 7:30 p.m., Delta Alano Club. Call 428-3007.

— A.A., Living Sober Group, closed, 10 a.m., Delta Alano Club.

— A.A., closed, 7:30 p.m., Delta Alano Club. Call 428-1494.

— A.A., closed, 8 p.m., Hannahville school.

— A.A., closed, (step meeting) 7:30 p.m., First Baptist Church, rear entrance, Manistique.

— Alzheimer's Support Group, 10-11 a.m., Presbyterian Church, 314 Main St., Manistique. Call Barbara Pohlman at 341-2144.

— TOPS (Take Off Pounds Sensibly) #726, Escanaba, Christ the King Lutheran Church. Weigh-in beginning at 5 p.m.; meeting at 6.

— TOPS #1515, Bark River, Hannahville Casino Bingo Hall. Weigh-in beginning at 5:30; meeting at 6

PUBLIC NOTICE

REVIEW OF DELTA SOLID WASTE MANAGEMENT PLAN

The draft Delta County Solid Waste Management Plan has been prepared by the County Solid Waste Planning Committee. The Plan outlines the selected solid waste system for Delta County, controls import and export of wastes between counties and identifies who is responsible for various activities regarding solid waste management. The Committee has established a local review period from November 19, 1998 until February 17, 1999 for public comments on the plan. A public hearing is scheduled for Wednesday, February 24, 1999 at the Escanaba Civic Center at 7:00 p.m. to receive additional comments. The public may submit comments on the Plan to the Solid Waste Planning Committee, 2415 14th Avenue South, Escanaba, MI until February 24, 1999. Copies of the Plan are available for public review at the County Courthouse, 310 Ludington Street, Escanaba or at the CUPPAD Regional Commission, 2415 14th Avenue South, Escanaba. Oral or written comments on the Plan are encouraged.

Physical & Rehabilitation Medicine

DELTA COUNTY SOLID WASTE PLANNING COMMITTEE
MEETING MINUTES

February 24, 1999
7:00 p.m.

Civic Center
Escanaba

Members Present:

Brian Horst	Howard Keeton	Craig Gierke
Mike Uskiewicz	Frank Manning (alternate)	
Don Pyle	Bob Ammel	

Members Absent:

~~Robert Ammel~~	Doug Peterson	Kathy Jacobi (excused)
Ellis Movalson	Tom Carviou	Roger Good
Frank Heino (excused)	Jennifer Maclaren	
Tom Vitito (excused)		

Public Hearing:

1. The Public Hearing on the Solid Waste Plan was called to order at 7:20 p.m. by Vice-Chair C. Gierke in the absence of Chair T. Vitito.

2. P. Van Steen, CUPPAD staff, reviewed the contents of the solid waste plan.

3. Letters were read and discussed from the following: Antrim County requesting import/export provisions, Krist Oil Company, and Department of Environmental Quality.

4. The Public Hearing was closed at 7:39 p.m.

Regular meeting:

1. The meeting was called to order at 7:39 p.m. by Vice-Chair C. Gierke in the absence of Chair T. Vitito.

2. Motion by B. Horst, seconded by D. Pyle to accept the agenda; motion carried.

3. Motion by M. Uskiewicz, seconded by D. Pyle to accept the minutes of the previous meeting; motion carried.

4. No public comments.

5. Letters were received and placed on file from:
   - Antrim County requesting import/export provisions between Delta and Antrum Counties.
   - Krist Oil Company requesting to import waste directly to Iron County.
   - Comments from the DEQ on draft plan.

6. Old Business.

   a. Motion by D. Pyle, seconded by B. Horst to include the comments from the DEQ into the draft County Solid Waste Plan; motion carried.

   b. It was the consensus of the group not to permit Krist Oil Company to export its solid waste to Iron County for disposal purposes. Materials for recycling are permitted to be exported as they are not solid waste.

   c. It was the consensus of the group not to include Antrim County in the list of import or export counties at this time.

7. Since there was not a quorum for the meeting, the Committee could not take official action in approving the Plan. Another meeting is scheduled for March 11 at 4:00 p.m. at the Civic Center. At least 8 committee members are needed for a quorum.

8. No public comments.

9. Meeting adjourned at 7:26 p.m.

Meeting minutes prepared by Peter Van Steen.

DELTA COUNTY SOLID WASTE PLANNING COMMITTEE
MEETING MINUTES

March 11, 1999
7:00 p.m.

Civic Center
Escanaba

Members Present:

Brian Horst	Howard Keeton	Craig Gierke
Mike Uskiewicz	Frank Heino	David Schultz (alternate)
Don Pyle	Bob Ammel	Roger Good
Tom Carivou	Doug Peterson	

Members Absent:
Kathy Jacobi (excused)
Ellis Movalson
Jennifer Maclaren
Tom Vitito (excused)

1. The meeting was called to order at 4:02 p.m. by Vice-Chair C. Gierke in the absence of Chair T. Vitito.

2. Motion by D. Schultz, seconded by M. Uskiewicz to accept the agenda as printed; motion carried.

3. Motion by H. Keeton, seconded by B. Ammel to accept the minutes as printed with the correction that Bob Ammel was present at the last meeting; motion carried.

4. Public comments:
Donn Atanasoff, Krist Oil Company, requested permission to export waste and recyclable materials from Delta County to Iron County. The firm's method of handling solid waste from the 26 stores involves picking up the waste and bringing it to Iron River to be sorted. Solid waste materials are incinerated and recyclable items are processed for recycling. Some waste does remain in Delta County to be landfilled. The Iron County waste plan will allow for the importation of waste from Delta County. Discussion by members on the county's flow control ordinance. There was no motion made by a member addressing the request from Krist Oil Company.

5. No communications

6. Old Business: none

7. New Business: Motion by H. Keeton, seconded by B. Horst to approve the Delta County Solid Waste Plan and recommend its adoption by the Delta County Board of Commissioners; motion carried.

8. No public comments.

9. Motion by B. Horst meeting adjourned at 7:26 p.m.

Meeting minutes prepared by Peter Van Steen.

April 13, 1999
Escanaba, Michigan

The Statutory Meeting of the Delta County Board of Commissioners was held this date pursuant to the following call:

April 8, 1999
Escanaba, Michigan

The Honorable Members of the Delta County Board of Commissioners

Dear Commissioners:

The Statutory Meeting of the Delta County Board of Commissioners is scheduled for Tuesday, April 13, 1999 at 5:15 p.m. in the Circuit Courtroom of the Delta County Courthouse.

Sincerely yours,

Wallace C. Thorsen
Delta County Clerk

ROLL CALL

PRESENT: Commissioners Bengry, Elegeert,Miron, Schultz and Vitito.

ABSENT: None

The meeting was called to order at 5:15 p.m. in the Delta County Circuit Court Room by County Clerk, Wallace Thorsen.

Moved by Commissioner Vitito and seconded by Commissioner Elegeert to approve the minutes of the Regular Board Meeting of March 2, 1999. MOTION CARRIED.

IXA2.1 Presentation of Delta County Flag.
The Delta County flag was officially presented to the County by Pauline Dehlin of Gladstone, the flag's designer. The original flag is now on display at the Michigan Library and Historical Center in Lansing and Delta County's flag will be displayed during county functions.

VII. REPORTS OF STANDING AND STATUTORY COMMITTEES

1. Concealed Weapons Board minutes of 2-16-99.
2. Solid Waste Management Authority minutes of 2-16-99.
3. FIA minutes of 2-22-99.
4. Road Commission minutes of 2-11-99, 2-22-99 & 3-11-99.
5. Airport and Parks Commission minutes of 3-10-99.

6. Pinecrest Board of Trustees minutes of 2-25-99.
7. Delta-Meno.District Board of Health minutes of 12-16-98 & 2-17-99.

VIII. REPORTS OF SPECIAL COMMITTEES AND OTHERS

1. Township Association minutes of 2-25-99.

Moved by Commissioner Vitito and seconded by Commissioner Elegeert that the Reports of Standing and Statutory Committees and the Reports of Special Committees and Others be received and placed on file. MOTION CARRIED.

IX. SPECIAL ORDERS OF BUSINESS:

IXA2.3 CDBG Grant Administrator Appointment.

Moved by Commissioner Bengry and seconded by Commissioner Elegeert to approve the appointment of the Menominee-Delta-Schoolcraft Community Action Agency as the CDBG Housing Rehabilitation Grant Administrator for Delta County. A roll call vote was taken. MOTION CARRIED.

AYES: Commissioners Bengry, Elegeert, Miron, Schultz and Vitito.

NAYS: None

ABSENT: None

A. CONSIDERATION & ALLOWANCE OF CLAIMS & BUDGET & FINANCIAL AFFAIRS.

1. UNFINISHED BUSINESS:

1.1 Personnel Committee minutes of 3-3-99.

Moved by Commissioner Miron and seconded by Commissioner Vitito that the minutes be received and placed on file. MOTION CARRIED.

1.2 Finance Committee minutes of 3-4-99.

Garden Ambulance Request.

Moved by Commissioner Bengry and seconded by Commissioner Elegeert to approve amending the previous Board recommendation to designate the amount coming out of the Emergency Vehicle line item to be $12,987. Additionally, the Board approved the expenditure of $2,013 out of the Hannahville monies, with the $15,000 total being deposited in a T&A account to be used for a new Garden ambulance. The Board reaffirms its past action that the current Garden ambulance may

be sold or traded in on a new ambulance, at the discretion of the Garden Ambulance Board. MOTION CARRIED.

Moved by Commissioner Vitito and seconded by Commissioner Miron that the minutes be received and placed on file. MOTION CARRIED.

1.3 Building & Grounds Committee minutes of 3-9-99.

City of Escanaba Ball Diamond Project.

Moved by Commissioner Elegeert and seconded by Commissioner Vitito to approve the Escanaba Ball Diamond Project as recommended. MOTION CARRIED.

Pathways Renovation Project.

Moved by Commissioner Vitito and seconded by Commissioner Miron to approve the Pathways Renovation Project at the Service Center Building as recommended. MOTION CARRIED.

Courthouse Basement Emergency Lighting.

Moved by Commissioner Miron and seconded by Commissioner Elegeert to approve the Courthouse basement emergency lighting proposal as recommended. MOTION CARRIED.

Green Lawn Fertilizing Proposal - Service Center & Courthouse.

Moved by Commissioner Elegeert and seconded by Commissioner Bengry to approve the Green Lawn Fertilizing proposals for the Service Center and Courthouse as recommended. MOTION CARRIED.

Moved by Commissioner Miron and seconded by Commissioner Vitito that the minutes be received and placed on file. MOTION CARRIED.

1.4 Personnel Committee minutes of 3-16-99.

Moved by Commissioner Miron and seconded by Commissioner Vitito that the minutes be received and placed on file. MOTION CARRIED.

1.5 Building & Grounds Committee minutes of 3-23-99.

Service Center Security Camera Proposal.

Moved by Commissioner Vitito and seconded by Commissioner Bengry to approve the Service Center Security Camera proposal as recommended. MOTION CARRIED.

Courthouse Handrails.

Moved by Commissioner Bengry and seconded by Commissioner Miron to approve the installation of handrails, as a needed safety item at the Courthouse, as recommended. MOTION CARRIED.

Landscape Mtce. Proposals-Courthouse & Service Center.

Moved by Commissioner Elegeert and seconded by Commissioner Bengry to approve the landscape maintenance proposals as presented. MOTION CARRIED.

Moved by Commissioner Elegeert and seconded by Commissioner Bengry that the minutes be received and placed on file. MOTION CARRIED.

1.6 Personnel Committee minutes of 4-7-99.

Moved by Commissioner Vitito and seconded by Commissioner Miron that the minutes be received and placed on file. MOTION CARRIED.

1.7 Finance Committee Minutes of 4-8-99.

Voting Equipment Recommendations.

Moved by Commissioner Vitito and seconded by Commissioner Elegeert to approve the updated voting equipment recommendations as presented. MOTION CARRIED.

1999-2000 Budget Schedule.

Moved by Commissioner Elegeert and seconded by Commissioner Bengry to approve the budget schedule as recommended. MOTION CARRIED.

Building A Sense of Place CIS Funding Request.

Moved by Commissioner Elegeert and seconded by Commissioner Bengry to approve the expenditure of $800.00 from the Hannahville monies for the project. MOTION CARRIED.

DMG Maximus Proposal for FOC IV-D Contract Billing Services

Moved by Commissioner Miron and seconded by Commissioner Vitito to approve the DMG Maximus proposal for the FOC IV-D Contract. MOTION CARRIED.

Moved by Commissioner Bengry and seconded by Commissioner Elegeert that the minutes be received and placed on file. MOTION CARRIED.

1.8 Building & Grounds Committee Minutes of 4-9-99.

Moved by Commissioner Vitito and seconded by Commissioner Bengry that the minutes be received and placed on file. MOTION CARRIED.

2. NEW BUSINESS:

2.1 Administrative Report.

2.1a. Board Photograph.
2.1b UPACC Spring Conference.
Administrator Boyne updated the Board on these two items.

2.1c Board of Commissioners Meeting Schedule.
Moved by Commissioner Vitito and seconded by Commissioner Miron to approve the revised Board meeting schedule as presented. MOTION CARRIED.

2.2 Payment of Bills.
Moved by Commissioner Elegeert and seconded by Commissioner Bengry to pay the bills in the amount allowed. MOTION CARRIED. (Attachment "A").

2.4 Delta County Road Commission Bonds.
Moved by Commissioner Vitito and seconded by Commissioner Miron to approve the Delta County Road Commission Bond Authorizing Resolution and associated documents as presented. A roll call vote was taken. MOTION CARRIED.

AYES: Commissioners Bengry, Elegeert, Miron, Schultz and Vitito.

NAYS: None.

ABSENT: None.

2.6 Airport Fire Fighting Training Grant & Resolution.
Moved by Commissioner Vitito and seconded by Commissioner Miron to approve the Airport "Contract for Aircraft Rescue and Fire Fighting Training Grant and Resolution (MDOT 99-0188)" as presented. MOTION CARRIED.

2.7 Airport Marketing Grant & Resolution.
Moved by Commissioner Elegeert and seconded by Commissioner Bengry to approve the Airport "Contract for Airport Awareness Projects Grant and Resolution (MDOT 99-0262)" as presented. MOTION CARRIED.

X. GENERAL ORDERS OF BUSINESS

A. UNFINISHED BUSINESS:

There was no unfinished business.

B. NEW BUSINESS:

1. 1999 Equalization Report.

Moved by Commissioner Elegeert and seconded by Commissioner Bengry to approve the 1999 Equalization Report as presented by Equalization Director Rick Lindstrom. MOTION CARRIED.

2. Approval of Delta County Solid Waste Plan.

Moved by Commissioner Vitito and seconded by Commissioner Bengry to approve the Delta County Solid Waste Plan as presented. MOTION CARRIED.

3. Head Start Month Resolution.

Moved by Commissioner Elegeert and seconded by Commissioner Miron to approve the resolution proclaiming April, 1999 as Head Start Month in Delta County. MOTION CARRIED.

XI. GENERAL PUBLIC COMMENT:

Several Pathways employees appeared before the Board and extended their thanks for the help received in contract negotiations. The contracts were recently ratified.

XIV. ADJOURNMENT:

Moved by Commissioner Elegeert and seconded by Commissioner Bengry to adjourn at 6:19 p.m. MOTION CARRIED.

Wallace C. Thorsen, County Clerk

David O. Schultz, Board Chairperson

RESOLUTION ON THE ADOPTION OF THE
DELTA COUNTY SOLID WASTE MANAGEMENT PLAN

BE IT RESOLVED, the Ensign Township Board approves the Delta County Solid Waste Management Plan.

Virginia Papnick
Clerk ~~/Secretary~~

April 19, 1999
Date

Please return signed and dated resolution to:

CUPPAD Regional Commission
2415 14th Avenue South
Escanaba, MI 49829

RESOLUTION ON THE ADOPTION OF THE
DELTA COUNTY SOLID WASTE MANAGEMENT PLAN

BE IT RESOLVED, the Brampton Township Board approves the Delta County Solid Waste Management Plan.

Rosalie M. Alworden
Clerk / Secretary

April 19, 1999
Date

Please return signed and dated resolution to:

CUPPAD Regional Commission
2415 14th Avenue South
Escanaba, MI 49829

RESOLUTION ON THE ADOPTION OF THE
DELTA COUNTY SOLID WASTE MANAGEMENT PLAN

BE IT RESOLVED, the Masonville Township Board approves the Delta County Solid Waste Management Plan.

Lillian M. Bjurman

Clerk / Secretary
Lillian M. Bjurman

April 20, 1999
Date

Please return signed and dated resolution to:

CUPPAD Regional Commission
2415 14th Avenue South
Escanaba, MI 49829

RESOLUTION ON THE ADOPTION OF THE
DELTA COUNTY SOLID WASTE MANAGEMENT PLAN

BE IT RESOLVED, the Wells Twp. Board approves the Delta County Solid Waste Management Plan.

Florence Johnson Clerk
Clerk / Secretary

4/21/99
Date

Please return signed and dated resolution to:

CUPPAD Regional Commission
2415 14th Avenue South
Escanaba, MI 49829

RESOLUTION ON THE ADOPTION OF THE
DELTA COUNTY SOLID WASTE MANAGEMENT PLAN

Motion by Comm. Sinnaeve; supported by Comm. Cowen to adopt the following resolution:

BE IT RESOLVED, the Gladstone City Commission approves the Delta County Solid Waste Management Plan.

Linda M. Gray
Clerk / ~~Secretary~~

4/26/99
Date

Please return signed and dated resolution to:

CUPPAD Regional Commission
2415 14th Avenue South
Escanaba, MI 49829

RESOLUTION ON THE ADOPTION OF THE
DELTA COUNTY SOLID WASTE MANAGEMENT PLAN

BE IT RESOLVED, the Baldwin Twp. Board approves the Delta County Solid Waste Management Plan.

Clerk / ~~Secretary~~ Julian Vandecaveye

April 26, 1999
Date

Please return signed and dated resolution to:

CUPPAD Regional Commission
2415 14th Avenue South
Escanaba, MI 49829

RESOLUTION ON THE ADOPTION OF THE
DELTA COUNTY SOLID WASTE MANAGEMENT PLAN

BE IT RESOLVED, the Township of Ford River approves the Delta County Solid Waste Management Plan.

Aye - Boudreau, Wellman, Judson, Dubord, King

Nay - None

Diane Dubord

Diane Dubord
Clerk / Secretary

May 10, 1999
Date

Please return signed and dated resolution to:

CUPPAD Regional Commission
2415 14th Avenue South
Escanaba, MI 49829

RESOLUTION ON THE ADOPTION OF THE
DELTA COUNTY SOLID WASTE MANAGEMENT PLAN

BE IT RESOLVED, the Township of Cornell approves the Delta County Solid Waste Management Plan.

Clerk / Secretary

5/12/99
Date

Please return signed and dated resolution to:

CUPPAD Regional Commission
2415 14th Avenue South
Escanaba, MI 49829

RESOLUTION ON THE ADOPTION OF THE
DELTA COUNTY SOLID WASTE MANAGEMENT PLAN

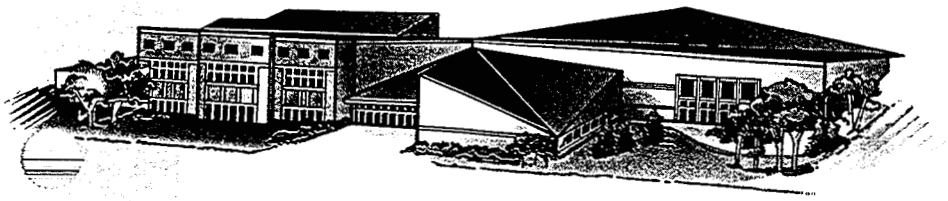
BE IT RESOLVED, the Garden Township Board approves the Delta County Solid Waste Management Plan.

Geraldine Stoken
Clerk / Secretary

5/17/99
Date

Please return signed and dated resolution to:

CUPPAD Regional Commission
2415 14th Avenue South
Escanaba, MI 49829



CITY OF ESCANABA

P.O. Box 948 • Escanaba, MI 49829-0948
906-786-0240 • fax 906-786-4755

Excerpt of the minutes of a regular meeting of the Escanaba City Council held on May 20, 1999, at the Council Chambers of City Hall, 410 Ludington Street, Escanaba, Michigan, at 7:00 p.m.

PRESENT: Mayor Craig S. Gierke, Council Members Leo Evans, Jeanne M. Rose, Gerald D. Shapy, Marc D. Tall, City Attorney Ralph B. K. Peterson, and City Manager Michael Uskiewicz.

ABSENT: None

NB-16 "By Council Member Rose, seconded by Council Member Shapy:

RESOLUTION ON THE ADOPTION OF THE DELTA COUNTY SOLID WASTE MANAGEMENT PLAN

BE IT RESOLVED, the Escanaba City Council approves the Delta County Solid Waste Management Plan."

Ayes: Rose, Shapy, Evans, Tall, Gierke
Nays: None

RESOLUTION DECLARED ADOPTED.

I, being the duly qualified City Clerk for the City of Escanaba, hereby certify that the foregoing constitutes a true and complete copy of a resolution adopted by the Escanaba City Council of the City of Escanaba, County of Delta, Michigan, at a regular City Council Meeting held on May 20, 1999.

Robert S. Richards, CMC
City Clerk

May 25, 1999
Date

RESOLUTION ON THE ADOPTION OF THE
DELTA COUNTY SOLID WASTE MANAGEMENT PLAN

BE IT RESOLVED, the Maple Ridge Township Board approves the Delta County Solid Waste Management Plan.

Linda L Meki, Clerk
Clerk / Secretary

May 25, 1999
Date

Please return signed and dated resolution to:

CUPPAD Regional Commission
2415 14th Avenue South
Escanaba, MI 49829

RECEIVED
MAY 27 1999
CUPPAD/1st Step

RESOLUTION ON THE ADOPTION OF THE
DELTA COUNTY SOLID WASTE MANAGEMENT PLAN

BE IT RESOLVED, the TOWNSHIP OF BAY DE NOC approves the Delta County Solid Waste Management Plan.

Robert G. Olson
Clerk / Secretary, SUPERVISOR

6/1/99
Date

Please return signed and dated resolution to:

CUPPAD Regional Commission
2415 14th Avenue South
Escanaba, MI 49829

PLANNING COMMITTEE APPOINTMENT PROCEDURE:

The County Board of Commissioners requested that Tom Vitito, the county commissioner representing Delta County on the Delta County Solid Waste Management Authority, present a list of appointees to the Committee for the County Board's consideration.

PLANNING COMMITTEE

Committee member names and the company, group, or governmental entity represented from throughout the County are listed below.

Four representatives of the solid waste management industry:

1. Brian Horst, Delta Solid Waste Management Authority
2. Jennifer MacLaren, Lakestate Industries
3. Robert Ammel, Delta Disposal
4. Craig Gierke, Delta Solid Waste Management Authority

One representative from an industrial waste generator:

1. Kathy Jacobi, Mead Paper

Two representatives from environmental interest groups from organizations that are active within the County:

1. Doug Peterson
2. Don Pyle

One representative from County government. All government representatives shall be elected officials or a designee of an elected official.

1. Tom Vitito - David Schultz, Alternate

One representative from township government:

1. Frank Heino, Brampton Township

One representative from city government:

1. Mike Uskiewiez, City of Escanaba

One representative from the regional solid waste planning agency:

1. Roger Good, CUPPAD

Three representatives from the general public who reside within the County:

1. Tom Carviou
2. Howard Keeton
3. Ellis Movalson

APPENDIX D

Plan Implementation Strategy

The following discusses how the County intends to implement the plan and provides documentation of acceptance of responsibilities from all entities that will be performing a role in the Plan.

The selected system is a continuation of the present system in place. Much of what is proposed for the management of solid waste is already in place and operating.

ATTACHMENTS

Resolutions

The following are resolutions from County Board of Commissioners approving municipality's request to be included in an adjacent County's Plan.

The plan was developed by and for the municipalities within Delta County.

Listed Capacity

Documentation from landfills that the County has access to their listed capacity.

Documentation from Delta Solid Waste Management Authority indicating capacity of 28 years is available for disposal of waste from Delta County.

DELTA SOLID WASTE MANAGEMENT AUTHORITY

P.O. Box 198
Escanaba, Michigan 49829

October 2, 1998

Mr. Peter Van Steen, Senior Planner
CUPPAD Regional Commision
2415 14th Ave. South
Escanaba , MI 49829

RE: Delta Solid Waste Management Plan

Dear Peter:

Delta Solid Waste Management Authority (DSWMA) controls an estimated 28 years of landfill airspace (at the current average waste generation and density rates) which is reserved for the use by Delta County.

Please do not hesitate to call me at (906) 786-9056, if you have any questions.

Sincerely,

David A. DeVet

David A. DeVet, P.E.
Landfill Manager

Enc.

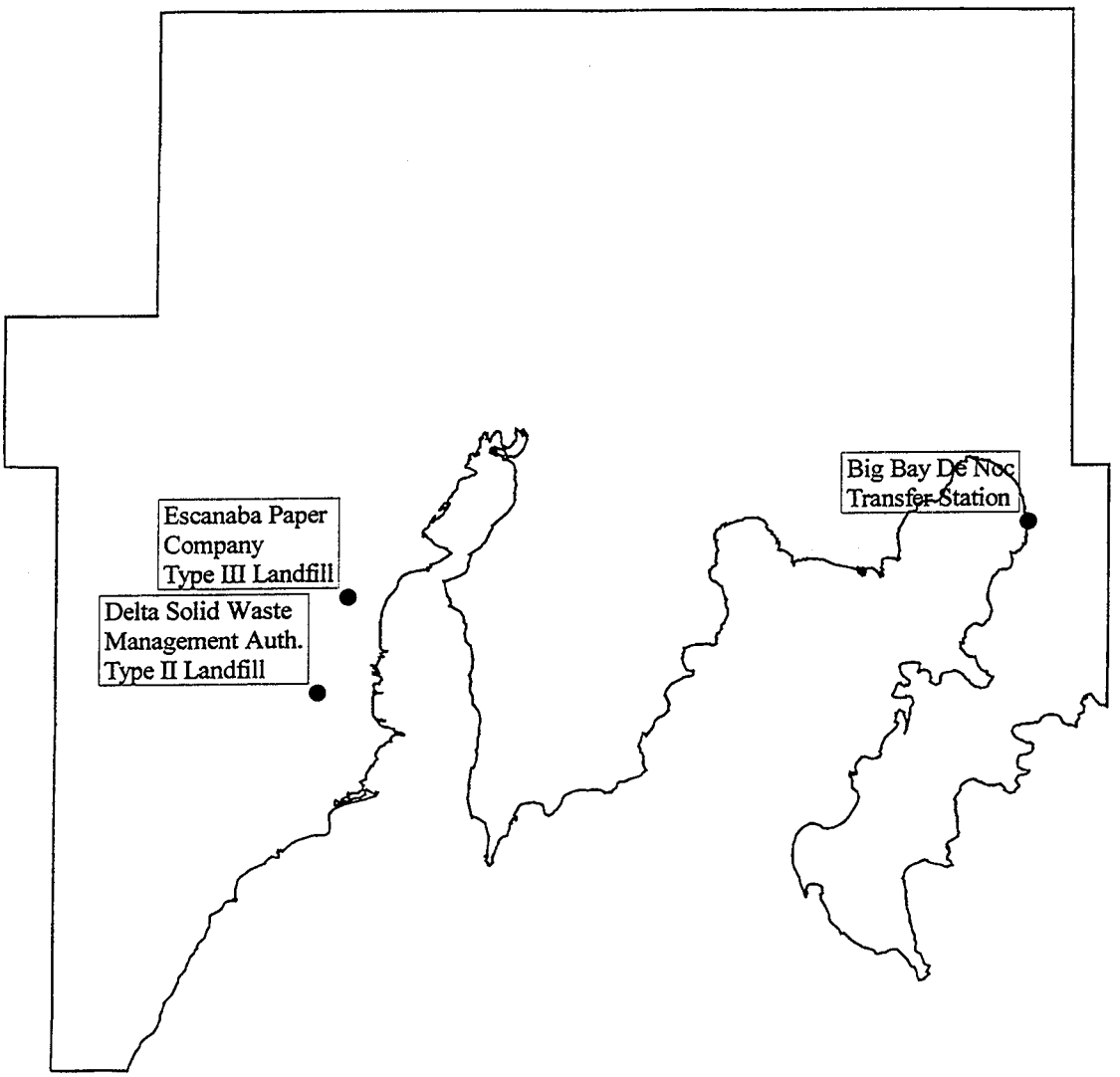
cc: Tom Vitito, DSWMA

ATTACHMENTS

Maps

Maps showing locations of solid waste disposal facilities used by the County.

Delta County
Solid Waste Facilities



ATTACHMENTS

Inter-County Agreements

Copies of Inter-County agreements with other Counties (if any).

Agreements are not required by the plan.

ATTACHMENTS

Special Conditions

Exportation of Solid Waste:

The Delta County Solid Waste Plan will authorize the **exportation** of up to 100% of waste from Delta County to the following counties: Alger, Baraga, Chippewa, Dickinson, Gogebic, Houghton, Iron, Keweenaw, Luce, Mackinac, Marquette, Menominee, Ontonagon and Schoolcraft Counties for primary disposal. The exportation of wastes to an out-of-county solid waste facility is authorized provided it meets the following conditions:

•Wastes exported to other counties for disposal shall be permitted when there is a discontinuance of landfill operations, or the solid waste is processed or handled at a transfer station owned and/or operated by the Delta Solid Waste Management Authority, or the Delta Solid Waste Management Authority is unable to take the waste for disposal at the Delta Landfill.

• Wastes generated by Mead Paper Publishing Division, may at their discretion, be disposed of a an out-of-county landfill.

• The exportation of wastes to other counties is subject to provisions as contained in the importing county's solid waste plan.

Importation of Solid Waste:

The Delta County Solid Waste Plan will authorize the **importation** of up to 100% of waste from Alger, Baraga, Chippewa, Dickinson, Gogebic, Houghton, Iron, Keweenaw, Luce, Mackinac, Marquette, Menominee, Ontonagon and Schoolcraft Counties for primary disposal.

Out-of-county wastes for disposal at the Delta Solid Waste Management Authority landfill is authorized provided it meets the following conditions:

•The Delta Solid Waste Management Authority, as owner of the landfill facility, would agree to accept the out-of-county wastes and is responsible for establishing the waste disposal fees.

- A maximum of 24,000 tons a year of out-of-county waste shall be permitted to be imported into Delta County for disposal at the Delta Landfill.

- The importation of wastes from other counties is subject to provisions as contained in the exporting county's solid waste plan.